AUGUST 1959

AR JOURNAL

CONSTRUCTION SECTION follows page 104

FLEET OPERATORS



IN THIS ISSUE CCJ Visits Kaputi Lines Reefer Rating Ready to Go How Cost Standards Can Work for You Tell Stockholders about Your Trucks

A Brighter Perspective on Transit Bus Trends Willett's Will-A-Matic Shop



Geared by FULLER . . .

BE-MAC cuts trip time 1/6 with ROADRANGER Transmissions

Be-Mac Transport Company, Inc., St. Louis, Mo., recently purchased 20 International Model DCOT-405 Tractors equipped with 10-speed Fuller R-96 ROADRANGER Transmissions.

The result: running times cut drastically and split schedules eliminated. Typical of the reduction in trip time is the company's St. Louis-to-Tulsa run. Be-Mac has shaved two hours from the 12 hours previously required for this 430 mile trip.

Company officials credit much of the sharp reduction in transit time to the semi-automatic Fuller R-96 Transmissions. With all ten forward speeds shifted by a single lever, and with short, easy steps between ratios, the 220 hp tractors can operate in the peak horsepower range at all times. Shifting effort is reduced and driver fatigue is minimized.

In addition to the 10-speed R-96's in the new tractors, Be-Mac operates

8-speed R-46 ROADRANGERS in their White 9000 Series Tractors. P. W. Goode, Executive Vice President of Be-Mac, says, "The reliable service we received from Fuller Transmissions in our older tractors influenced our selection of Fuller ROADRANGERS in our recent equipment purchases."

Ask your dealer for full details about the Fuller Transmission which is best suited for the requirements of your particular operation.

FULLER

MANUFACTURING COMPANY
KALAMAZOO, MICHIGAN



Subsidiary EATON Manufacturing Company

Unit Brop Forge Div., Milweukes 1, Wis. * Shuler Axie Ca., Levisville, Ky. (Subsidiary) * Sales & Service, All Products, West. Dist. Branch, Oakland 6, Cal. and Southwest Dist. Office, Tulsu 3, Okie.



Greyhound knows that...

...dependable engine performance is a secret of "on-time" schedules

This is one of the important features of Greyhound service. It is one of the reasons so many travelers accept Greyhound's invitation to "take the bus and leave the driving to us."

Greyhound uses Pedrick Formflex Chrome Piston Ring Sets in its buses for extra assurance of dependable engine performance. The ease and simplicity of the installation, the way Pedrick rings restore full power quickly, provide maximum oil and fuel economy and last so very long are other important reasons for Greyhound's use of Pedrick rings.

So, in your fleet, to reduce down-time and improve operating economy, always install Pedrick Formflex Chrome Piston Ring Sets—the *all-purpose* piston ring installation. Wilkening Manufacturing Co., Philadelphia 42, and Toronto 2.

DEPEND ON

Gedrick
FOR THE RIGHT RING JOB

COMMERCIAL CAR

-August 1959-Vol. 97-No. 6-



DON'T MISS

This Month's Feature

It was a most unusual fleet visit
to a most unusual fleet
with some most unusual shop procedures, so
CCJ's Mobile Editorial Team reports . . .
ALLES IST NICHT KAPUT AT KAPUTI LINES . . 88

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Here's the brighter perspective E. N. "Bing" Hatch found when he took a careful look at the bus business in Nassau County, N. Y. He suggests you try it in your area

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Budd Co. in Philadelphia is ready to rate insulated trailers using Truck-Trailer Manufacturers Assn.'s approved procedures. Here's the way the set-up operates

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It puts vehicle inspection and maintenance on a production line basis, so Willett Co. calls this new Chicago facility its "Will-A-Matic Service Center"

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JOURNA

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...and the NEW FP Flare is setting sales records!

Introduced this year, the FP (Flare Perfection) is now the toastof-the-trade with many thousands of units already delivered, and with orders pouring in like a Mississippi flood . . . Why? . . . Because the FP answers the demand for a reflector flare of TOP quality and



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- FLARES
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For full particulars and complete automotive catalog write

The First Line of Safety ORT MADISON, IOWA



LOUIS and CARL WARD

Proprietors of Ward Brothers Trucking Co., Green Bay, Wisconsin

GREEN BAY WISCONSIN MILWAUKEE

The Ward Brothers fleet hauls petroleum from Green Bay and Milwaukee to destinations within a radius of 300 miles from each starting point. During certain times of the year they have to keep their huge trailers rolling around the clock, regardless of weather and road conditions.

DUAL TRAC

... and discover how to avoid tire failures!

Louis and Carl Ward have been in the trucking business for many years. And they've built their success by always keeping their operation up-to-date in efficiency. Take tires, for example. They've learned that the latest, most modern top-quality tires pay off handsomely in avoiding down time. That's why they now use Kellys exclusively on all their equipment.

"Since switching 100% to Kellys we have not had a new tire failure. What's more, our actual tire mileage records show that Kellys give us a lower cost per mile. Kellys deliver not only more original mileage but also more recaps per casing. In fact, just last Saturday we took off a set of four drive wheel tires-all Kellys-that had gone 140,000 miles on the original tread. And we'll get much more mileage on recaps."



C. H. T.

SUPER ARMOR TRAC

. THE SIGN OF **BONUS TRUCK** TIRE MILEAGE!

THE KELLY-SPRINGFIELD TIRE COMPANY, CUMBERLAND, MD. . THE KELLY-SPRINGFIELD TIRE COMPANY OF CANADA, LTD., TORONTO, ONTARIO, CANADA

TRACTOR RIB

F D I T O R I A L C O M M E N T

Hey Mister, How about You?

THIS IS BEING written as Technical Editor Ed Shea and I wheel east on the Pennsylvania Turnpike in "Little Mo," our Mobile Office. We're home-bound...from a meeting of the Truck-Trailer Mfrs. Assn. at Hot Springs, Va... from an on-the-scene inspection of the special brake test being made by government and industry at Jennerstown, Pa... and from a quick swing through Ohio and Indiana.

At the moment, we feel very much a part of the trucking industry. However, just the other day we had a reader who disagrees with that. He took rather violent exception to my comments in the June issue concerning "The Accident That Didn't Happen." You may recall that it reported the death of an owner-operator leased to a large and reputable carrier. We picked that incident, from an official ICC report, because it did concern a reputable carrier. That's what blew the fuse.

But our friend objected: "If you want a cause to champion, pick one that will do the people who receive your publication good, not harm.

. . . Speak out for regulation of wild-catters who eat 'bennies' to drive a thousand miles without rest."

As I told him, we were delighted to have his comment. For one thing it proved we had a reader who was willing to think and to voice his opinion. It also showed that he knew very well how to write an excellent letter to an editor with whom he disagreed.

But most of all we welcomed his comments because it gives us an opportunity to raise again the age-old challenge: How can we reach the "untouchable"?

Just about a year ago we offered a prize for a valid means of reaching the guy who belongs

to no association, who doesn't read COMMERCIAL CAR JOURNAL or any other magazine. The offer still stands. For he's the guy who goes on his merry way without brakes, without a muffler, without a log book and without much common sense. And he's the guy who usually stirs up all the trouble.

We had some replies to our offer. But most of them were from people just a little bit remote from the real problems of the industry. They didn't jell. So we say again to you, Mr. Fleet Operator, tell us how, individually or collectively, we can reach those characters and help to bring them into line.

The other night we had the unusual opportunity of coming down the New Jersey Turnpike at 50 mph where the legal limit for both cars and trucks is 60. As you might expect many cars and many trucks passed us. What did our hearts good was that every one of the big ones blinked their lights, snuck up on us so quietly we hardly knew they were there. As we blinked our acknowledgment we couldn't help but think—there was the industry as it should be—batting a full 100 per cent.

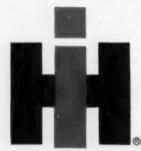
But you know and I know that it isn't always that way, even among some of the bigger carriers. On lesser roads and steeper hills, the passenger car driver seeing a big job coming down behind him, still asks himself, "Can it and will it stop in time?" Sometimes it can't and the whole industry pays with another black eye.

Tell us how we can produce that happy day when Mr. Motorist will know (not just hope) that the truck driver behind him is alert and his equipment right. When that day comes, we can all turn out to bring Mr. Motorist, himself into line.

Bart Rawson Editor

INTERNATIONAL TRACTORS OFFER 23 GASOLINE AND LPG ENGINE OPTIONS... "SIXES" OR V-8'S!





Bigger muscle, more dependability on any kind of job with R-Line conventional models from $50,000\ to\ 65,000\ lbs.$ GCW!

- \bullet Four six-cylinder engine options from 372 to 501 cu. in. size gasoline or LPG.
- Five front axles from 5,500 lbs. to 11,000 lbs. capacity.
- Sixteen rear axles from 16,000 lbs. to 28,000 lbs. with single reduction, double reduction or 2-speed.

leternational Harvester Co., Chicago - Motor Trucks - Crawler Tractors - Construction Equipment - McCormick ⊕ Farm Equipment and Farmall ⊕ Tractors

INTERNATIONAL TRUCKS

WORLD'S MOST COMPLETE LINE These INTERNATIONALS give you a complete selection of all-truck power and all-truck components engineered to meet your needs exactly!

And this is typical of every model in the

COMPLETE INTERNATIONAL TRUCK LINE!





Low first cost, low upkeep cost all along the line with new B-Line models from 29,000 to 48,000 lbs. GCW!

- Three six-cylinder engine options from 264 to 308 cu. in. size — gasoline or LPG.
- Three V-8 engines from 266 to 345 cu. in. size.
- Four front axles from 4,700 lbs. to 7,000 lbs. capacity.
- Sixteen rear axles from 13,500 lbs. to 18,500 lbs. with single reduction, double reduction or 2-speed.

Easier handling of longer loads, better engine accessibility with tilt-cab COE models from 50,000 to 65,000 lbs. GCW!

- Four six-cylinder engine options from 372 to 501 cu. in. size — gasoline or LPG.
- Three V-8 engines from 401 to 549 cu. in. size.
- Three front axles from 7,500 lbs. to 11,000 lbs. capacity.
- Ten rear axles from 18,500 lbs. to 23,000 lbs. with single reduction, double reduction or 2-speed.

B.F.Goodrich



B.F.Goodrich Traction Express tires give fleet operator 50% more mileage than any other make

MEYER'S BAKERY of Blytheville, Ark., ships its products to the north-central states. Fifteen tractortrailers do the job, traveling 16 hours a day, 7 days a week. Dependability and extra mileage were two things this company needed from a tire, so they tried the B.F. Goodrich Traction Express. Read what Manager R. H. Watson writes:

"Traction Express tires give us 50% more mileage than tires previously used. Road delays due to tire trouble have been reduced 20%. We plan to make all our replacements with B.F.Goodrich tires, because they mean 'many dollars saved'."

The Traction Express tread is up to 33% thicker than that of a regular tire. Husky cleats take a non-slip grip on

pavement. Under the tread is the B.F.Goodrich FLEX-RITE NYLON cord body. FLEX-RITE NYLON withstands double the impact of ordinary cord materials, resists heat blowouts and flex breaks. No wonder this B.F.Goodrich cord body outwears even an extra-thick tread, can be retreaded over and over.

Truck operators call the Traction Express "the 100,000-mile tire". Why not see your B.F.Goodrich Smileage dealer today and find out how the Traction Express will give you lowest cost per mile. Your dealer is listed under Tires in the Yellow Pages of your phone book. B.F.Goodrich Tire Co., A Division of The B.F.Goodrich Co., Akron 18. Ohio.

Specify B.F.Goodrich Tubeless or tube-type tires when ordering new equipment



B.F.Goodrich truck tires

B.F.Goodrich Company

Stand-Drive Control Adjustments

Dodge Brake Problems

Noisy Starting Motor Operation

Reworked BoxWrench Makes Job Easy

Cross Out Cross-Fire

Run-Outs Help Cut Tire Costs

Studebaker's New Overdrive Circuit

Change in Clutch Lock-Up Pressure

IHC Changes Transmission Gasket

Don't Forget Cranksaft End Thrust

Got the Right Condenser?

Mack Injector Pump Screws

Caution on Dodge Spring Shackles



HERE'S HOW to remove stubborn oil gallery plugs. A recent Engine Rebuilders bulletin says if these plugs are heated with an acetylene torch they will come out quite easily. Where an Allen-type plug is used, don't put the torch too close. Reflected heat will burn the tip. Get the torch as close as possible without burning.

Stand-Drive Control Adjustments

INTERNATIONAL reports adjustment procedures for the single clutch and brake control on Models AB-120 and AB-140 stand-drive trucks. For positive control and ease of operation these controls should be inspected and adjusted periodically. Here's what to do:

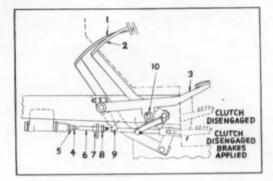
Check brake lining-to-drum clearance and brake pedal free play. IHC recommends ¼ in. brake pedal free travel. If adjustment is necessary loosen the locknut (4) and rotate adjusting nut (5) at master cylinder to obtain the correct travel.

The recommended clutch pedal free travel is $1\frac{1}{2}$ in. Depress the stand-drive pedal until the



TIMELY NOTES ON TRUCK, BUS, PASSENGER CAR
FLEET MAINTENANCE AND OPERATION
briefed by ED SHEA, Technical Editor

clutch is completely disengaged. Hold the pedal in this position. Back off locknut (7) as shown in illustration and rotate adjusting nut (8)



until it just contacts lever (9) when the master cylinder push rod is in normal (not applied) position and the clutch disengaged. Check clutch and brake operation using both sit-drive (1 and 2) and stand-drive (3) controls. The stand-drive pedal should completely disengage the clutch before starting to apply the brakes. If required, readjust the linkage to obtain proper operation. Check and make sure all locknuts are tight and lubricate controls.

Dodge Brake Problems

A RECENT DODGE Service Bulletin says some mechanics have been drilling additional vent holes in the master cylinder cover to correct for loss of brake pedal. They thought the existing vent was plugged or restricted. Dodge says extensive tests have proved that a plugged vent does not cause the loss of brake pedal.

Drilling additional holes may allow dirt to enter the hydraulic system resulting in damage to the brake system. In other words, if there is a loss of brake pedal, do not immediately redrill the master cylinder vent cover. Check the entire brake system since the trouble is being caused elsewhere.

(TURN TO PAGE 12, PLEASE)

WAGNER LOCKHEED withstands today's high



- DESIRED COEFFICIENT OF FRICTION
 Maintaining Life Long Frictional Value
- 2. LONG LINING LIFE
 Resistance to Braking Temperatures
- RELATIVE FREEDOM FROM TENDENCY TO SCORE DRUMS
- 4. QUIET OPERATION
- 5. NON-OFFENSIVE ODORS
- 6. NOT UNDULY SENSITIVE TO MOISTURE
- 7. NON-COMPRESSIBILITY
- 8. MINIMUM SWELL TENDENCIES

W859-3

BRAKE LINING braking temperatures...

This complete line of modern brake lining ... and blocks ... provides you with correct choice Engineered for your heavy-duty service needs

Today's brake linings may look like the linings marketed over the past twenty years. However, due to continuous research, advanced engineering, and improved formula—Wagner's linings have gone through a process of evolution that makes them more than adequate for modern braking...Today, Wagner offers you a wide choice to meet your needs.

You'll like the way the new Wagner Lockheed Heavy-Duty Brake Lining withstands today's high braking temperatures. It resists heat with very little loss of friction or wearing qualities.

Engineered to meet the rigid demands of present-day over-the-road driving, Wagner Lockheed Brake Lining wears slowly and evenly. Brakes require fewer adjustments even though subjected to heavy-duty service under severe driving conditions.

This high-quality lining is uniform in density and in frictional qualities throughout entire service thicknesses. Lining will not compress, absorb moisture, or deteriorate with age. Contains no harmful materials to damage drums.

YOU HAVE A CHOICE...Wagner Lockheed Brake Lining and Blocks are available in sets. Slabs are made in combinations of radius, thickness and width for use on practically every heavy-duty vehicle.

You can benefit, too, by purchasing all your brake service needs—Wagner Lockheed Hydraulic Brake Parts, Fluid and Lining—from one dependable source...Your nearby Wagner supplier.



EXCHANGE SHOE SETS save you time and money. "HOW-TO-DO-IT" Installation Instruction sheet is included with each set. Shoes are lined with Wagner approved lining—contour ground, ready for installation.

For details on the complete line—mail the coupon for your free copy of Catalog AU-500.



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Please mail us a FREE copy of Catalog AU-500 on the Wagner line of Hydraulic Brake Products.

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FIRM NAME

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CITY & STATE_



MONARCH Power Hydraulic CONTROLS
that LIFT and LOWER the snow plow...



...Automatically!

HY-LO-JACK HY-LO-JEEP

You operate the snow plow right from the truck

or jeep cab with Monarch Controls. Instant, automatic lifting or lowering that saves time, does the job more efficiently. See your dealer or write for illustrated folder.



MONARCH ROAD MACHINERY COMPANY

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"BLACKHALL" WASHERS

- · Cut Washing time by as much as 80%!
- . Do better, more efficient, washing job!
- Reduce actual washing costs!



For smaller fleet operators, the "Junior Blackhall" gives the same "Bonus Value" performance in a Junior size version. Available in kit form.

Shown above is a "Blackhall" 2-brush washer installation. Modern merchandisers recognize the importance of clean equipment.

Trailers, Panel Trucks and Buses can be washed in 10 minutes or less—total time for the entire operation...And Ross and White "Bonus Value" construction assures long, dependable, trouble-free performance.

If you want "Bonus Value" in your washing equipment, write Today for full information on the "Bonus Value" "Senior" or "Junior" washer!

Menufecturers of: "Blackhall" Stationary Washers • "Wilson" Portable Washers "Front-Sides & Back" Trailer Washer • "Buck" Cyclone Cleaners

ROSS and WHITE COMPANY
Chicago Daily News Building • Chicago 6, Illinois • Bept. CC-8

PASSENGER CARS



Continued from Page 9

Noisy Starting Motor Operation

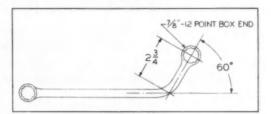
H AVE ANY Plymouths in your fleet with noisy or erratic starter motor drives? A recent Plymouth bulletin says this may be caused by small amounts of foreign particles getting on the threads of the Bendix drive. This condition is more noticeable on cars with an air-cooled automatic transmission. However, it can be checked without removing the starter.

If equipped with an automatic transmission, remove the inspection plate at the bottom of the torque converter housing. With a standard transmission, remove the clutch housing pan on the bottom of the clutch housing. If the accumulation of dirt is slight, apply a few drops of No. 10W oil. Use a pressure type oil can with a 7 in. extension spout to lubricate the Bendix drive. If inspection reveals a lot of dirt, it will be necessary to remove the starter assembly and clean it.

Reworked Box Wrench Makes Job Easy

INTERNATIONAL sends instructions for modifying a box wrench for use on the two lower transmission mounting bolts. This applies to A and B line models equipped with the T-19, T-22, T-30, or T-31 transmission. Here's what to do:

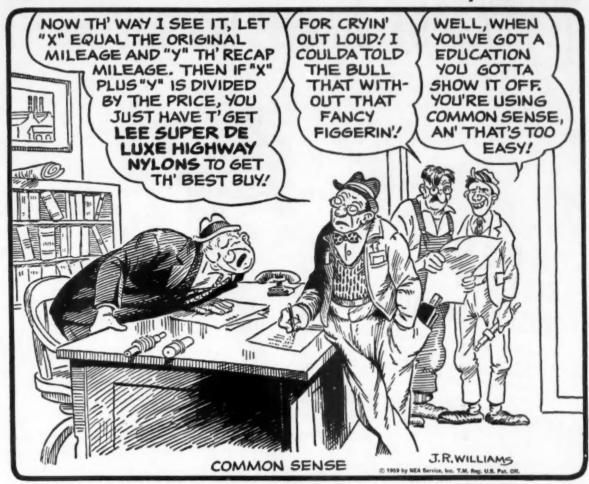
Take a standard % in. 12-point box wrench and rework it, as shown in illustration, to make



a 60 deg angle on the end. With this wrench, you can work through the opening in the bottom of the bellhousing. The 60 deg curve in the handle permits working from the outside through the opening.

Cross Out Cross-Fire

REMEMBER, induction leakage can cause spark plugs to fire out of time. This can cause over-heating and even preignition. Champion Spark Plug Company reminds us that cross-



TOTAL MILEAGE INCREASED BY BONUS RECAPS

Total cost-per-mile decreased with Lee Super DeLuxe Highway Nylons

If you keep accurate cost figures on tire mileage, as most smart operators do, you can easily prove to your own satisfaction that you can't beat Lee Nylons. For these rugged tires give you not only maximum original mileage, but their carcass strength is such that you can rely on multiple recaps.

Into these tires Lee puts the toughest cord known-Super-Tensile Nylon, produced by an exclusive Lee process. Users tell us that this tough cord gives them unequaled protection against impact bruises, blowouts and moisture damage.

The natural rubber tread is a special Lee design. It gives the tire extra traction and cooler running on the road. Both these factors add to tire life.

So why not specify Lee Super DeLuxe Highway Nylons, tube or tubeless, for all your units. They give you the greatest assurance of long original mileage and maximum recaps. And when it comes to retreading, you can't do better than to specify Lee Premium Double-Life Tread Rubber, branded for your protection.

LEE RUBBER & TIRE CORPORATION

Shown is the Lee Super DeLuxe Highway Nylon. Whatever your truck tire needs, there's a Lee that's right for the job.



GREATEST SINGLE IMPROVEMENT

THE PLUG WASHER
CAN'T STICK...
"BUILT-IN LUBRICATION"

New "super-slippery" Teflon-equipped plug is self-swivelling . . . Can't stick! Core goes in easily. Comes out easily—leaves valve wall clean.

PLUS: STANDARD FULL LENGTH CONSTRUCTION

Spring-at-the-bottom never under tension until inserted in the valve . . . and all the well-known features that have made the Schrader Valve Core the Ace of Standardization.



NFW

N TIRE VALVE CORE HISTORY

Schrader #4000 Swivel-T Valve Core with plug seal of Teflon* assures most positive air seal you ever made!

A small fraction of an ounce of precision-engineered Teflon does it. This miracle material creates a plug washer that covers a far wider range of the tire needs of modern vehicles.†

Tests prove temperature extremes from -100° F to 500° F do not affect this plug seal of Teflon. It shrugs off oil, water, even acids... has almost limitless fatigue life. And, because Teflon is the slipperiest sealing gasket substance known, the plug washer becomes its own swivel! Even under high pressure it slides like ice against ice... doesn't require a two-piece swivel construction to permit tightening without scuffing. The plug is now one-piece and therefore stronger.

Cores can be more precisely positioned in the valve with a wider range of tightening torques. They can't stick... come out easily and cleanly when removed in tire service. Tested, approved and used by all tire manufacturers.

Schrader original equipment tire valves are now being supplied with these new Swivel-T Valve Cores to assure the longest and most dependable service life of any tire valve ever made.

This is another Schrader contribution to help you. Get the *best* service from your tires. See for yourself . . . first hand . . . that these new Swivel-T Valve Cores perform better than any other core you ever used. Your supplier has them in stock.

*Teflon is a duPont trademark.

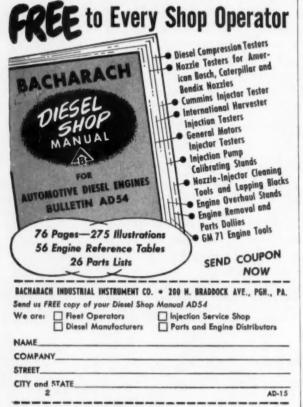
†Will da a better job on any tire service work you have. There is even a Swivel-T Core with special springs and seat washer material for higher heat conditions and lower and higher opening pressures.



FIRST NAME IN TIRE VALVES

FOR ORIGINAL EQUIPMENT AND REPLACEMENT





TRUCKS



Continued from Page 12

fire may also rob voltage from the plug that is supposed to fire.

An easy way to detect cross-firing is by using a neon pipe spark plug firing indicator. Holding it near the suspected spark plug cable will show up the induced voltage.

Moral: Don't let cross-fire spoil a good tune-up.

Run-Outs Help Cut Tire Costs

WILLET CO., Chicago truck leasor and contract carrier, cuts tire costs by using "run outs" on rear wheels of tandem-axle trailers. Ray Jensen, Willet's tire shop superintendent, found that the tires that generate the largest repair bills are those on trailer rear wheels . . . especially on those the fleet uses to haul steel. Even new tires had almost the same number of failures as older tires in this position.

Jensen checks tires as they come in for re-cap. When they're not worth it, he brands them "Run-Out." His only rule is that the carcass



be capable of holding together for at least a year. These are stored separately, go onto the trailer rear wheels as the need arises. Big benefit is that newer tires don't have to be junked as often because of bad gashes . . . upping both original mileage and permitting more recaps.

Studebaker's New Overdrive Circuit

A RECENT Studebaker bulletin says on 1959 model 4E trucks, no relay is necessary due to a new simplified transmission overdrive wiring circuit. Relay was dropped on all trucks starting with the following serial numbers: E1-3213, E2-588, E3-629, E5-126939, E6-17926, E7-11932, E11-13694 and E12-4120. New wir-

Tough jobs call for the right equipment . . .

EVANS HEATERS

are <u>right</u> for trucks because they are built for trucks!

A car heater is fine for an automobile, but it's as out of place in a truck as a convertible would be in the scene below. To heat your truck *properly*, a *truck-built* heater is a must!

Whatever your truck heating requirements—whether for a conventional truck or an extra-heavy-duty giant—there's an Evans heater custom-tailored to your needs. Evans heaters are designed to provide both the correct BTU output and proper heat distribution for the truck in which they are installed. What's more, they give you the rugged dependability and durability you need . . . the high truck-heating performance you want.

Every Evans heater is backed by a "repair or replace" parts warranty, good for a full year or 50,000 miles. To get the most for your heating dollar, specify Evans truck-built heaters for *your* fleet. For complete information, write Evans Products Company, Dept. O-8, Plymouth, Mich.

Proved in the field, Evans truck-built heaters offer the utmost in heating comfort and efficiency—even when temperatures drop below zero for extended periods.



Regional Representatives: Cleveland, Frank A. Chase • Chicage, R. A. Lennex Detroit, Chas. F. Murray Sales Co. • Allentown, Pa., P. R. Weldner

EVANS TRUCK AND BUS HEATERS
AND VENTILATING SYSTEMS



EVANS PRODUCTS COMPANY . PLYMOUTH, MICHIGAN



"They treat you fine at the Goodyear Sign!"

--where you'll find the best values in TRUCK TIRES to meet every need of Tonnage, Traction and Terrain-from pickup and panel-truck operations, to the biggest over-the-road haulers and earth-movers. All backed by years of experience . . . all expertly serviced at

GOODYEAR DEALERS'.



RIB HI-MILER Best buy in the low-price field

HI-MILER XTRA GRIP Year-round low-cost super-traction



SUPER ROAD LUG
Powerful off-the-road
traction PLUS long,
smooth highway mileage

HI-MILER CROSS-RIB Shatters highway tread-wear records

Hi-Miler, Road Lug -T. M.'s The Goodyear Tire & Bubber Company, Akron, Ohio

"Our Raton Pass -but Cross-

Red Ball Motor Freight of Dallas, Texas,

"The toughest part of our runs from various points in Texas to Denver is through Raton Pass – where the going is rugged and the grades steep.

"But in spite of this tough haul, the extra depth of Goodyear Cross-Ribs is



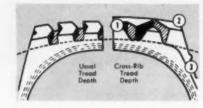
delivering from half again to double our former tire mileage. And that's not counting the extra retread mileage we're getting in spite of the exceptionally abrasive aggregate we encounter in some of the roads.

"Yes, the Cross-Rib can take it. And talk about traction! More than once our trucks have come through heavily drifted snow on the Pass with no difficulty.

"On hot-weather runs, too, the Cross-Rib's coolerrunning tread, backed by the extra strength of Goodyear's exclusive 3-T Nylon Cord, delivers far longer, even-wearing mileage."

Red Ball Motor Freight is one of hundreds of overthe-road haulers who make big operating savings with Goodyear's Cross-Rib Tires. Get all the facts from your Goodyear dealer. For documented case histories, write Goodyear, Truck Tire Dept., Akron 16, Ohio.

HI-MILER CROSS-RIB: EXTRA RUBBER plus TRIPLE-TOUGH 3-T NYLON CORD



① 60% thicker nonskid tread! ② Cooler-running tread design. ③ Tripler-Tough 3-T NYLON Cooled (Goodyear triple-tempers Nylon cord in an exclusive process involving Tension, Temperature and Time, to make it TRIPLE-TOUGH—for longest tire life, most recaps, lowest cost-permile!)

TRUCK TIRES by GO

runs are tire killers Ribs doubled our mileage!"

reports standout tire savings on one of the toughest truck runs in the states:



Watch the award-winning Goodyear Theater on TV every other Monday evening



More tons are hauled on Goodyear Truck Tires than on any other kind





- REDUCE ACCIDENTS
- MEET STATE LAWS
- LAST LONGER



"STOP IT" SAFETY FLASHER makes lights flash on-off, for warning signals, directional signals. Flashes 1 to 4, 21 candlepower lights, singly or in unison, without matching flashers to load. 6 or 12 volts.



HEAVY DUTY "UNIVERSAL" AL-TERNATING FLASHER meets State Laws for alternating flashing sig-nals. Up to 15 amperes, 6 or 12 volts. Operates magnetically. Noth-ing to wear out. No lubrication. No upkeep. For lights or horn.

HAVING FLASHER PROBLEMS?? WRITE:

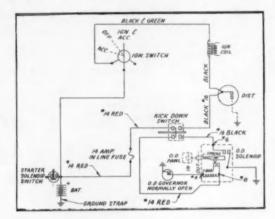
& COM 819 Valencia Street, San Francisco 10, Calif.

TRUCKS



Continued from Page 16

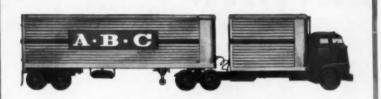
ing circuit-shown below-is the same as used on its 1959 model passenger cars equipped with overdrive.



Change in Clutch Lock-Up Pressure

CCORDING TO Euclid, the lock-up clutch A presure in Allison 5640 and 5840 "Torqmatic" transmissions have recently been increased to approximately 120 psi minimum. This pressure increase was effective with S/N-10366 in the 5640 Series and S/N-10231 in the 5840 (TURN TO PAGE 24, PLEASE)















If it travels on wheels, Raybestos can help you cut the operating cost-per-mile



Woven Molded



Raylok & Ray-Met



PGT Heavy Duty



V-Drive & Automatic



Full Molded



Heavy Du

AMERICA'S BIGGEST SELLING FRICTION MATERIAL



RAYBESTOS DIVISION of Raybestos-Manhattan, Inc., P.O. Box 1021, Bridgeport, Connecticut RAYBESTOS-MANHATTAN, INC., Brake Linings • Brake Blocks • Clutch Facings • Fan Belts • Radiator Hose • Industrial Rubber • Engineered Plastics • Sintered Metal Products • Rubber Covered Equipment • Asbestos Textiles • Laundry Pads and Covers • Mechanical Packings • Abrasive and Diamond Wheels • Industrial Adhesives • Bowling Balts



RPM DELO Special Oil protects so well... trucks work 25% longer before overhaul

Wagner Transportation Co., Twin Falls, Idaho, used to schedule engine overhauls for its over-the-road diesel tractors at 200,000 miles. After changing to RPM DELO Special Oil, however, engines dismantled at this interval showed so little wear . . . were in such good condition throughout . . . that overhaul period was extended to 250,000 miles.

"RPM DELO Special Oil does the best job of any oil we've ever used," says Wagner's Master Mechanic, Ike Rile. "We've used it since 1952... have yet to find a stuck ring. It holds down engine wear, eliminates sludge and varnish...oil consumption is moderate, too! We've tried competitive oils but in our opinion there's no comparison."

Hauling livestock, produce and general freight, Wagner Transportation Co. rigs operate throughout the West in every sort of temperature extreme... travel close to $2\frac{1}{2}$ million miles per year. Present fleet includes 10 Whites and 10 Kenworths.

RPM DELO Oil reduces wear and prolongs engine life because it clings to parts whether the engine is running or idle... hot or cold. Piston rings stay free because an anti-oxidant fights gum and lacquer formation and a special detergent keeps parts clean. Other additives prevent corrosion of bearing metal and crankcase foaming.

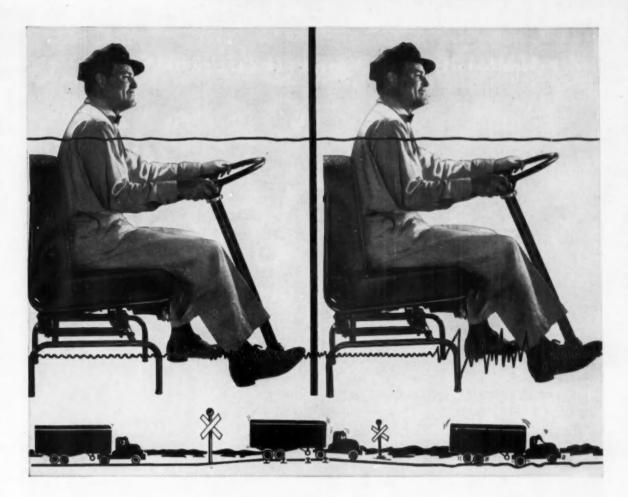
Why not try RPM DELO Oil? Chances are it can cut your costs, lengthen equipment life. Just call your local representative or write any company listed below:



STANDARD OIL COMPANY OF CALIFORNIA, San Francisco 20 . STANDARD OIL COMPANY OF TEXAS, El Paso

THE CALIFORNIA COMPANY, Denver, Colorado

TRADEMARKS "RPM DELO" AND CHEVRON DESIGN REG. U.S. PAT. OFF.



on regular roads or really rough ones . . .

For a passenger-car ride on roads of all types, see the advantages of this new, improved "Level-Ride" 80 Suspension Seat.

The "Level-Ride" 80 suspension system gives drivers a five-times-better ride. The shock absorber also soaks up severe jolts and jars from extra-rough rides. This shock absorber functions much like the automobile type—particularly to prevent topping and bottoming over chuck holes, rough detours, railroad tracks and bumpy surfaces around loading docks.

Not only do drivers get a smooth, level ride, but they also maintain stability at the wheel and constant control over their trucks.

For added comfort, this new "Level-Ride" 80 Seat features a contoured back. This gives support where it helps . . . further reduces back slap. Seat may

also be equipped with armrests.

This new Bostrom "Level-Ride" 80
Contour Seat is available on all makes
of new trucks and as a replacement on
your present trucks. See your truck
dealer or Bostrom distributor.



Shock absorber, added as standard equipment, smooths out jolts and jars from extra-rough rides.



New contour back adds seating comfort, further reduces back slap.



BOSTROM CORPORATION

133 West Oregon Street • Milwaukee 4, Wisconsin

ROVAN ALL ELECTRIC

truck refrigeration units

Economical, Around-the-Clock Refrigeration on Truck Engine or AC Power Plug-In



6 MODELS to meet your particular delivery truck needs

Ask your Truck Dealer or Body Builder to get you the Complete story on Rovan Units.

Manufactured By:

THE FRANK-DEWEY COMPANY, INC.

12334 STARK ROAD

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LIVONIA, MICHIGAN

FOR YOUR B&D TOLS For genuine Black & Decker repairs check

For genuine Black & Decker repairs check Yellow Pages under "Tools-Electric" for address of nearby Black & Decker FACTORY SERVICE BRANCH

Free tool inspection when requested • Genuine B&D parts used • Factory-trained technicians handle all work • Standard B&D Guarantee at completion of recommended repairs • Fast service at reasonable cost.

Or write for address of nearest of 48 branches to: The Black & Decker Mfg. Co., Dept. S-4608, Towson 4, Md.



TRUCKS

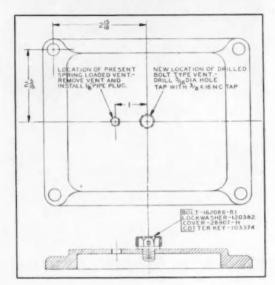


Continued from Page 20

Series. New minimum pressure applied to second, third and fourth gear range since lock-up occurs only in these ranges.

IHC Changes Transmission Cover Gasket

LUBRICANT LEAKING through the transmission cover breather on International Code No. 13075 and 13076 transmissions? Here's what to do: Replace tower cover gasket with

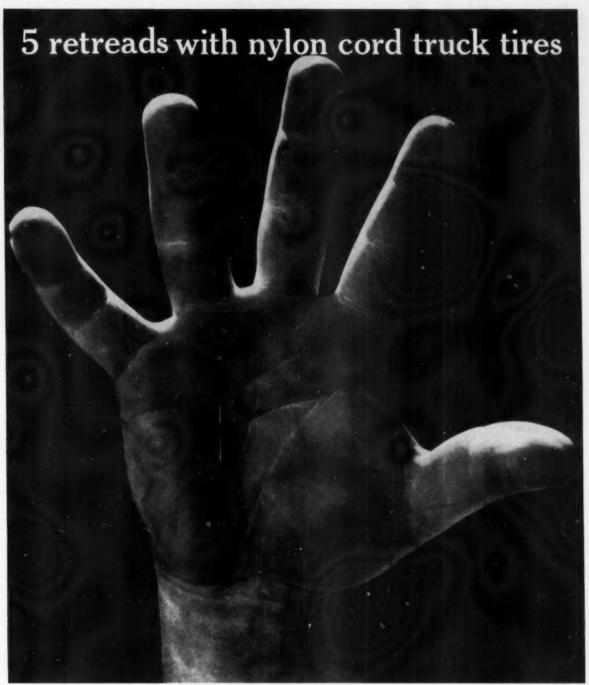


IHC Part No. 161-811-R2. This gasket has only one ½-in. vent hole (as compared to six holes on earlier gaskets). While cover is off, check the breather vent. If spring-loaded type is used, change to a drilled-hole type vent as illustrated.

Don't Forget Crankshaft End Thrust

SEALED POWER says don't forget crank-shaft end thrust when overhauling a V-8 engine. Its field men report this is overlooked in many cases when a low mileage engine is being overhauled. Many V-8 engines—particularly pick-up trucks with stick transmissions with 18,000 to 20,000 miles of service—will show 0.015 to 0.018-in. end thrust. A check of crank thrust specifications on some later engines shows that the range should vary from 0.002-in. min. to 0.012-in. max. When a job is down make sure crankshaft end thrust is within manufacturers tolerances.

(TURN TO PAGE 28, PLEASE)



It figures. The stronger your tire casings are... the more retreads you stand to get. Today, the most durable casings built into truck tires are made with nylon cords. Tests prove it. Road experience proves it. Because nylon cords make a tougher, stronger tire, truckers get more original mileage to start with, and as many as 5 retreads in the bargain. Another profitable fact: downtime due to cord failure is really kept down because

nylon cords have greater resistance to heat rupture, flex breaks, impact damage, moisture rot... the major causes of blowouts. And today's nylon is even tougher, even longer lasting. One reason: a growing share is being produced by The Chemstrand Corporation, one of the country's top nylon yarn suppliers. Next time you're in the market for tires, get nylon cords—they make the strongest case for thousands of extra profitable miles.



THE CHEMSTRAND CORPORATION, 350 Fifth Ave., N.Y. 1 . Plants: CHEMSTRAND® NYLON—Pensacola, Fla. . ACRILAN® ACRYLIC FIBER—Decatur, Ala.

When They Compare for

Clutch Torque Retention ...Fleet Operators Switch to LIPE!



Torque retention is an important matter to the steadily growing body of fleet owners who are changing over to LIPE. In their every-day experience Lipe Heavy-Duty DPB Clutches mean more miles per gallon of fuel...more ton-miles between shop-stops...more capital equipment-use per repair dollar. All because of Lipe's high

retention of clutch torque capacity.

Is it any wonder then that after looking at fleet maintenance and operating costs, more and more owners are discarding other clutches for the one that pays off in profits per ton mile.

Among fleet owners all over the country
...the trend is to LIPE!

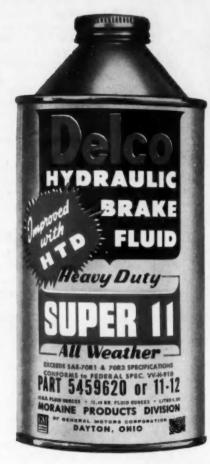


Lipe Heavy-Duty DPB Clutches are available in single and two-plate types; 12", 13", 14" and 15" sizes; with torque capacities from 300 to 1900 ft.-lbs.



For your added convenience-

BOTH GREAT BRAKE FLUIDS NOW IN HANDY 12-OZ. CANS



DELCO SUPER 11 EXTRA HEAVY DUTY BRAKE FLUID

This is the brake fluid that is original equipment on all new General Motors cars—a ready-made market for replacement. Improved with HTD, Doto Super 11 flows freely at $-50^{\circ}F$, and exceeds the minimum beiling point and all other requirements set by S.A.E. 70R1 and the new S.A.E. 70R3 specifications. It's completely compatible with rubber and metal parts, chemically inert, physically stable. Soft through United Motors System and General Motors dealers.

DELCO SUPER 99 HEAVY DUTY BRAKE FLUID

Here's heavy duty protection for cost-conscious customers. Free flowing at -60°F, and exceeds the minimum boiling point and all other requirements set by S.A.E. 70R1 specifications. It's chemically inert, physically stable and compatible with rubber or metal brake parts as well as other quality brake fluids. Sold through United Motors System and Chevrolet.



Both Delco brake fluids continue to be available in pints, quarts, 1-, 5-, and 30-gallon containers.

Vital Parts for Automotive Progress



Moraine Products

Division of General Motors, Dayton, Ohio



FOR YOUR PROTECTION, MAGNUS PRODUCTS ARE AVAILABLE ONLY FROM OUR OWN EXPERIENCED AUTOMOTIVE SALES-SERVICE REPRESENTATIVES.

TRUCKS



Continued from Page 24

Got the Right Condenser?

WHEN TUNING an engine, examine the distributor points to see if the condenser is the proper capacity. Champion Spark Plug reminds us that an over-capacity condenser causes a build-up of metal on the stationary contact point if the battery is negatively grounded. If the battery has the positive post grounded, the build-up will be on the movable breaker contact. An under-capacity condenser will result in a build-up of metal on the movable contact if the battery is negatively grounded. The buildup will be on the stationary point if positive battery post is grounded.

Briefly, over-capacity causes build-up on the negative side, under-capacity builds on the positive side. If there is no build-up on either point this indicates a condenser of correct capacity.

Mack Injector Pump Screws

M ACK REPORTS that it is important to properly torque injector pump segment screws on its diesel engines. On END, ENDL, ENDT and ENDLT—673 engines, tighten segment screws to 30-35-in, lb. When undertorqued, the segment slips and upsets the pump calibration. In cases where mechanics overtorque, the head breaks off and allows the segment to move. Don't forget to install a new seal after replacing the cover.

Caution on Dodge Spring Shackles

WARNING: Some spring shackles on 1959 Dodge trucks Models M6 and 8, D1, 2, 3, W1, 2 and P3 were brazed rather than welded. A Dodge service bulletin says, should one of these brazed shackles fail do not rebraze or weld to make repairs. This can create dangerous toxic fumes due to the cadmium content in the brazing metal.

From a safety standpoint, it would be much better to replace these brazed shackles rather than rebraze or weld. Dodge goes on to suggest that if one spring shackle fails, don't just replace the one shackle, replace all at the same time.

All the models specified above carrying Serial Nos. from L01000 to L26293 are equipped with the brazed shackles. They can be identified by the copper color of the brazing metal and in most cases by the smooth finish compared to the "puddled" finish of a welded shackle. For proper identification, scrape off the paint from the shackle and check the coloring.



RENT IT FROM HERTZ

Overloading trucks never pays. Neither does tying up capital in owned trucks that may sit idle, waiting for peak delivery periods.

Renting Hertz trucks solves both problems. You get the added capacity you need for extra jobs, without investing a dime of capital.

Hertz is America's largest and most experienced truck rental company. We offer a greater variety of Chevrolet, GMC and other modern trucks in more locations, available on short notice, than any other company. Call your local Hertz office whenever you need added truck capacity in its most economical form.



You can also lease Hertz trucks for economical year-round operation



D. L. Hartman (left) shows Cooper salesman Don Ellison (right) one more reason why he has been a satisfied user of Cooper tires for over 20 years.

Cooper Road-Master Extra Mile tires carry 18-ton payloads, average 150,000 original miles

"These tires have not been off the wheels since they were put on new 152,463 miles ago," says D. L. Hartman, owner of Industrial Cartage Company, Warren, Ohio. "And several tires still have plenty of tread rubber to go. This is typical of the service we've been getting from Cooper truck tires ever since we started using them over 20 years ago."

Hauls Heavy Steel

D. L. Hartman is a hauler of heavy steel products and specializes in the kind of loads many truckers have to turn down. His 53 fleet units are reinforced to support multi-ton loads of steel pipes, beams, generators, machine tools, bars, plates, coils, and sheets over some of the toughest roads to be found in the 8-state area surrounding Ohio.

Payloads average 18 tons, a weight that even the best truck tires often have trouble taking in stride. But not Cooper Road-Master Extra Mile tires. Here are two money-saving reasons why:

Million Dollar Marvel

Cooper's new million dollar electronic cord processing mill adds super strength to the DuPont nylon or Tyrex* cord used in building Cooper truck tires. It produces a more uniform, more compact, better insulated, cooler-running "Hi-T" (high tension) tire cord that is stronger than steel cable pound for pound.

Shock-Guard Construction

Cooper's exclusive Shock-Guard construction adds an even greater margin of strength. This modern method of tire building puts extra breaker strength and extra layers of cushioning rubber under the tread, at the shoulders, and far down the sides. The result is a practically damage-proof Cooper Road-Master tire that delivers up to 45% more original mileage, plus as many as 4 and 5 bonus recaps.

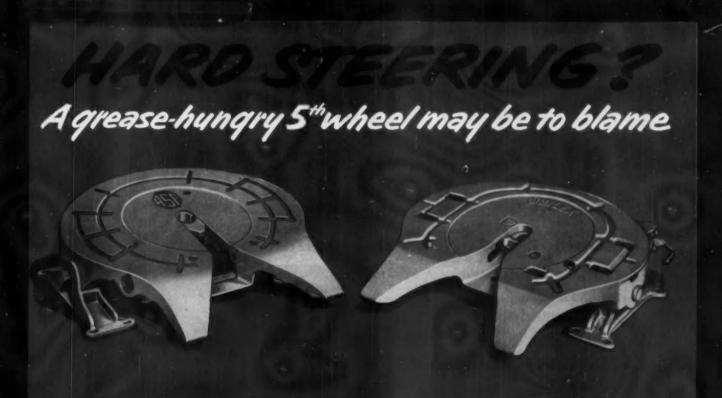
Cut Tire Costs

It all adds up to big savings. New Cooper Road-Master Extra Mile tires cost less to buy, deliver more original and recap mileage, stand up to punishment much better, cut road delays, lower operating costs and boost payload profits. See your Cooper truck tire dealer and save money. Or write Dept. 118 for prices and information. Cooper Tire & Rubber Company, Findlay, Ohio.



Light-looking load actually weighs over 10 tons. Yet that's only a little more than half the payload normally hauled by Industrial Cartage.



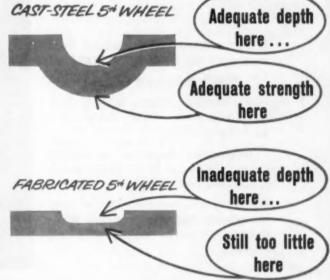


Both ASF and Simplex 5th Wheels are cast-steel construction to provide an adequate — and deep — grease-groove pattern at no sacrifice in strength!

In cases of steering trouble, check your 5th wheel bearing surface—the grease pattern and contact with trailer bed plate. Many operators have licked steering problems by switching to ASF and Simplex 5th Wheels.

Not only do you get far better lubrication in ASF's cast-steel construction, as shown in the illustrations; in addition, the plates offer maximum possible bearing surface. Result: less pounds' pressure per square inch.

Only with cast steel is it possible to get these fundamental advantages. See your ASF Distributor for information on the finest 5th wheels your money can buy; or write American Steel Foundries, Hammond Division, Hammond, Ind.





AMERICAN STEEL FOUNDRIES

Producers of ASF and Simplex Cast-Steel 5th Wheels

DEPENDABLE RING INSTALLATIONS...

reduce operating and maintenance costs

To merit the continued confidence of fleet operators, Perfect Circle provides for dependability through:

Manufacturing craftsmanship

to assure uniform perfection in the rings delivered to the installing mechanic...to assure uniformly satisfactory initial performance.

Engineering skill

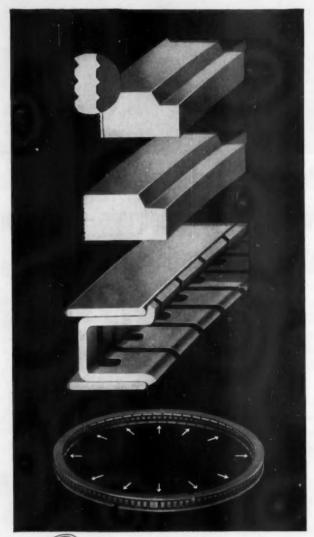
to assure consistently lowest rate of wear...to assure consistently longest effective life.

Other reasons why leading fleet operators say **PERFECT CIRCLE** all the way!

Power Service products that simplify maintenance operations, economically extend engine life.

Information Services provided through Doctor of Motors Clinics and specialized fleet technical assistance.

New Product Leadership that assures customers of the most advanced products progressive engineering can provide.



PERFECT

Hagerstown, Indiana



In Canada: Don Mills, Ontario



AUGUST 1959 FLEET HIGHLIGHTS as reported by Commercial Car Journal

Don't Organize the Flexibility Out of Your Fleet

Much of the trucking industry's success within the past 20 years can be attributed to freedom from established procedure. This was the theme laid down by United Parcel Service Vice President Charles Foreman as keynote speaker at American Trucking Assns.' recent Industrial Relations Forum. Today's high degree of business management organization might "freeze what we now have" rather than encourage progress, he warns. Foreman's recommendation: Organize your fleet "for innovation and change, in order to keep ahead of the competition." To do this, he continues, center your management around the objectives of your company. Then decentralize these goals to give each employee responsibility for influencing the conditions of his work.

Highway Financing Debate Gets Underway

As warned here last month (and summarized in the timely article beginning on page 103 in the same issue), Congress began late last month to debate where to find the added dollars needed to keep the highway building program on schedule. House Ways and Means Committee (after public hearings last month) decided to ask Congress to extend the highway building program by four years . . . complete the Interstate Highway System by mid 1976 instead of 1972. It also recommended issue of up to \$1 billion in highway bonds to cover payments to states for commitments already made. Net effect is to cut in half Interstate Highway building between July 1, 1960, through June 30, 1962. Hard hit will be state highway departments and contractors geared-up to spend \$6.9 billion of federal-aid money for the Interstate System in the three-year period as compared to the \$3.5 billion possible under the Committee's recommendations.

Transit Assn. Suggests Plan to Cut Rider Promotion Costs

American Transit Assn. is offering to serve as a clearing house for exchange of materials used by bus properties for rider promotion. Idea is that production costs can be cut by exchange of art work, photo-engravings and other materials. You send them to the Association free of charge. It, in turn, would offer them to other transit fleets. Only cost would be the out-of-pocket costs of making mats or reproduction proofs. If you're interested, write American Transit Assn., 355 Lexington Ave., New York 17, N. Y.

In Inland Transport. Everybody's OK Except the Railroads

Is transportation adequate in the event of a national defense mobilization? Answered Undersecretary of Commerce John J. Allen, Jr. (at Congressional subcommittee hearings middle of last month), when it comes to inland transport, only the railroads are deficient. Highway transportation, freight forwarders, pipelines and inland waterways all "appear" able to meet a heavier traffic demand. On the other hand, says Allen, "rail capacity to meet a great expansion in event of emergency is less than . . . certain other modes of transportation." Importance to fleet operators of such a conclusion: National defense is a sensative subject, can be used by the railroads as an effective argument in their efforts to change transportation rules and regulations to suit their needs.

DETROIT DISPATCH

DIESEL ENGINES FOR on highway use will be announced this fall by Caterpillar Tractor Co. Well known in the off-highway field, the company presently offers 20 diesel powerplants for use in construction equipment.

GAS TURBINE AND free piston engine research is now in progress by International Harvester. Models for both on and off-highway use will be developed.

NEW HEADLAMP FOR two-headlight vehicles has been OK'd by American Assn. of Motor Vehicle Administrators and Automobile Manufacturers Assn. Design gives more seeing distance on low beam, better light on right side of road, deeper penetration of fog and rain. They'll be tagged as "Seven-Inch Type Two" headlamps, are fully interchangeable with present 7-in. lamps.

CERAMIC HARDFACING CUTS valve burning says Republic Hardfacing Corp., Bedford, Ohio. Process comes from jet engine research where control of corrosion and burning is even more critical than in piston engines. chevrolet HAS added a 160-hp V-8 engine option to its 6000 Series trucks. Application is limited to not over 19,000 lb GVW, comes with 4-speed transmission and either one or 2-speed 15,000-lb rear axle.

FIVE ROADEO-WINNING DRIVERS WERE recently asked by Ford how trucks could be improved. Tops on the list of suggestions were cooler COE cabs, better side mirror design, recessed interior door handles, power steering, more cab space particularly in COE units. The drivers, winners in the 1958 ATA National Truck Roadeo, were brought to Dearborn, Mich., to participate in a safe driving film being produced by Ford.

NEW AUTOMATIC TRANSMISSION IS being worked-on by Curtiss-Wright. Word is that incorporates gear box discs mounted loosely in liquid instead of being in fixed positions.

DRIVE SHAFT COUPLING IS latest use being investigated for foamed-in-place urethane plastic. Dayton Rubber is experimenting with it, says it creates an elastic torsion spring that will trans-

WASHINGTON WATCH

TRUCKS PAID \$250 million in federal highway-use excise taxes that did not go into the Highway Trust Fund in 1957, reports American Trucking Assns.

HOURS OF SERVICE IS the subject of a 4-page questionnaire now being sent interstate truck operators by American Trucking Assns.' Safety Dept. Purpose is to develop the facts needed in convincing Interstate Commerce Commission that some changes are needed in its recently proposed wholesale revision of Secs. 195.1 through 195.8 of its Safety Regs (June, page 186).

consolidated Freightways has a problem. It set-up through highway-ocean, single bill of lading freight rates to serve four western states and Hawaii. Up to press time, it hadn't found any regulatory agency that would approve them. Since the land and sea portions of the rate aren't shown separately, neither the ICC nor the Maritime Administration wants to do it.

PROPOSAL BY ICC TO liberalize common carrier rights (mostly by eliminating difference between regular and irregular route carriers) has run into another snag. ATA has asked the Commission that railroad trucking subsidiaries not be included in the study. First protest came from ATA's Regular Common Carrier Conference (May, page 34). It says the ICC has no authority to make such a change.

SMALL CARS COULD be a tax problem. State highway departments are reported concerned over possible loss in revenue from gasoline taxes since one advantage of the small cars is their ability to go further on less fuel. One tongue-in-cheek suggestion: State taxation of tires. A smaller wheel revolves more times than a larger one to get to the same place.

RATE INCREASE ASKED for by AT&T and Western Union on private line leased circuits are opposed by Amer-

mit full engine torque yet dampen vibration and cushion shock. Another advantage, says Dayton, is that it makes possible a much smaller coupling.

WHAT'S IT COST in terms of passenger car fuel efficiency when you add accessories? Pure Oil recently took a standard American model with no extra equipment, got 20.3 mpg in a test run. Then it added a host of accessories—power steering, a u t o m at i c transmission, air conditioning, etc.

Over the same test run, the mpg dropped to 14.471

HERTZ PLANS TO order 4500 of Detroit's new small cars . . . 1500 each from Ford, Chevrolet and Plymouth as they become available. They'll be used in the fleet's car rental operation.

TIRE PRICE CUT ON certain of its passenger car replacement lines is announced by Goodyear Tire & Rubber Co. Decrease ranges from 5 to 15 per cent, applies to Goodyear's Custom Nylon, Custom Rayon, Safety All-Weather Nylon as well as to 14-in. tires to put them on the same basis as 15-in.

ican Trucking Assns. Says ATA, proposed boost does not take into consideration the potential high volume use of such facilities by motor carriers.

FIRST MEETING OF the National Motor Equipment Interchange Committee (NMEIC) is early next month, Sept. 10-11, at the Hotel Muehlbach, Kansas City, Mo. Since the trailer interchange agreement went into effect (Mar., page 35), some 135 more carriers have joined to bring the total to about 500 common carriers.

PIGGY-BACK SHOULD be used by the Army says a new report. Prepared by the Transportation Corp., it cites savings in freight handling costs, lower rail rates, reduced cargo damage and pilferage. You get a copy of the report, "Study of Feasibility of Trailer-on-Flatcar Railway Transportation, No. PB151303" by sending \$2 to Office of Technical Services, U. S. Dept of Commerce, Washington 25, D. C.

TRUCK TONNAGE

FOR THE FIRST five months this year, intercity truck tonnage was up 20 per cent ahead of the same period last year. For May 1959, the increase was 20.4 per cent over May 1958. All nine regions showed gains.

HERE ARE the boosts as reported by American Trucking Assns.' Research Dept.: New England—up 16.5 per cent, Middle Atlantic—up 18.8 per cent, Central—up 33.4 per cent, Southern—18.2 per cent, Northwestern—11.3 per cent, Midwestern

Month	% Change from Provious Month	96 Changs from a Year Age
May, 1988	- 1.1 + 1.0	+20.4 +26.2
1st Quarter '80	****	15.6
March, 1969 February, 1969 January, 1959	+13.2 - 2.2 + 2.7	+25.0 +17.6 +11.7
Full Year, 1958	****	- 1.1
4th Quarter '58	****	+ 8.2
December, 1958 Nevember, 195 8 October	+ 3.3 -16.1 +11.3	+17.4 + 0.8 + 3.2
3rd Quarter '58	****	- 2.1
Septem ber , 1988	+ 0.2 - 2.4	+ 2.3 - 6.8 - 0.3
2nd Quarter '88	****	- 2.6
June, 1988	+ 3.2	+ 8.3

—14.4 per cent, Southwestern—13.7 per cent, Rocky Mountain—5.9 per cent and Pacific—2.7 per cent.

TRUCK AND BUS PRODUCTION

	Weeks	Ending	Year to	Date
	July 11	July 4	1959	1958
Chevrolat	8,900	8,117	228,184	155,594
G. M. C.	2,054	1,613	50,508	33,479
Diamond T	103		3,505	2,000
Dodge and Fargo	1.004	1.630	48.083	32,354
Ford	6,649	6,446	109,643	120,200
F. W. D.	22	20	839	784
International	2,825	3,419	82,013	81,137
Studshaker	326	333	7 694	6,042
White	112	72	10.247	9,351
Willys	2,325	1,855	64,355	44,048
Other Trucks	70	70	2,048	1,675
Total-Trucks	25,688	23,961	695,971	466,979
Buses	30	25	1,565	1,788
Tetal-Trucks and Buses	25,638	23,986	697,526	468,737

Source: Automobile Manufacturers Association

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A QUICK LOOK AT WHAT'S COMING TO HELP WITH YOUR ADVANCE FLEET PLANNING

AIR FREIGHT LINES could be "formidable competitors" for truck and rail freight, American Trucking Assns. President J. Robert Cooper told members of the Mississippi Trucking Assn. at their annual meeting middle of last month. "In my own mind, there is no question about the future importance of air freight . . . when research and technical progress enables them to cut their ton-mile cost. . . ."

NATIONAL CITY LINES, owners of 36 local transit lines and operators of four others, have gone one step further. They now offer management and consulting services for the transit industry. Subsidiary company, National City Management Co., has been set-up to handle the work. . . complete management, consultation or special studies. Its address is Suite 3500, Prudential Plaza, Chicago 1, Ill.

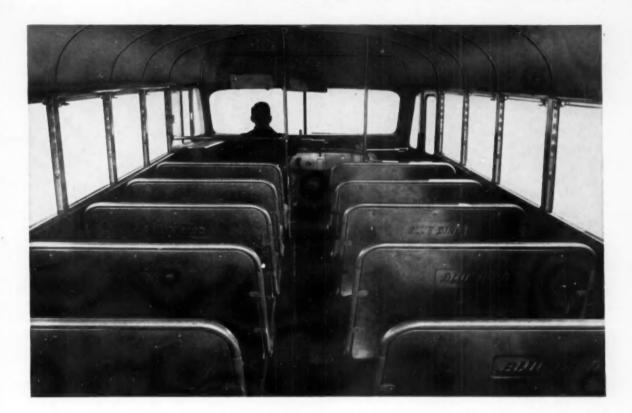
TRUCK BODY and Equipment Assn. says plans for its 12th annual convention and exhibit are well underway. Almost 200 booths will be occupied by makers of truck body components when the meeting opens at the Sherman Hotel, Chicago. Dates for the show are Oct. 5-7. On the technical side, subjects slated for discussion include truck body materials, insulation and panel-type construction.

AMERICAN TRANSIT ASSN. is urging its members to support "National Downtown Week," Oct. 18-24. Association has been working with the week's sponsor, says it has been assured promotional material will give emphasis to importance of local transit. Event will take the place of "Traffic Improvement Week," sponsored by the Association in past years.

RAILWAY EXPRESS has a new lease on life. A new agreement between the Agency and its owning railroads has been OK'd by its board of directors. It would run up to the end of 1973. Approval by Interstate Commerce Commission and railroads are still needed . . . but no serious delay is expected. Biggest change is that Railway Express will pay railroads on a car-foot mile basis for freight hauled, instead of passing-on revenue left after deduction of Agency expenses. Rates based on the new set-up are expected to be fully in effect by Jan. 1, 1963.

HERE ARE THE production totals for May and the first five months of 1959. There's not much doubt that next month's figures will continue the trend, reflect a fat first half for the year.

in thousands										Truck	and Bus	Tires	
of units, except bus sales are in actual numbers	New Truck Registrations		Truck Factory Sales—Domestic			Trailer ments	Bus Factory Sales Demostic			cement nents	Origina Shipi	i Equip. ments	Inven-
	May	5 Months	May	5 Months	May	5 Months	May	5 Months	May	5 Months	May	5 Months	tory End of May
1959	88.6	382.4	95.6	452.9	6.4	29.5	235	939	738,4	3881.2	442.1	2019.4	3005.
1958	63.2	283.6	58.5	290.2	3.9	17.3	206	1397	626.5	3171.4	298.7	1380,3	3571.4



School bus seat backs of ALUMINIZED STEEL keep shape, resist damage, need no paint

Armco Aluminized Steel is a 2-in-1 metal—strong steel hot-dip coated with aluminum by a special process.

The rigid steel base withstands buckling and denting from kicks, thumps or blows. Sharp objects can't cut or pierce it. Its partner, the aluminum coating, won't chip or flake off like paint because it is metallurgically bonded to the steel. In service this means lasting good looks, minimum maintenance.

School bus seat backs are only one example of critical bus and truck-body parts that can be made more attractive, longer-lasting, with Armco Aluminized Steel... the original hot-dip aluminum-coated steel. Why not find out more about this special steel? Just fill in and mail the coupon.

ARMCO STEEL CORPORATION
2299 Curtis Street, Middletown, Ohio
Send more information on Armco Aluminized Steel
We manufacture

NAME

FIRM

STREET

ARMCO STEEL



Armco Division • Sheffield Division • The National Supply Company • Armco Drainage & Metal Products, Inc. • The Armco International Corporation • Union Wire Rope Corporation • Southwest Steel Products

Gold Comet V-8 OV 235 Gas Brake hp; 235 @ 3400 rpm Torque: 412 @ 2400 rpm Bore: 4-1/8* Stroke: 4-1/8* Displacement: 440 cu. in.





GOLD COMET truck engines

Only Reo offers replaceable "wet-sleeve" cylinders in a complete line of gasoline and LP-Gas engines for heavy hauling. Here's the big reason Gold Comets are first choice for high road mileage, or operations where engine miles far exceed chassis miles.

Reo's easily replaceable "wet-sleeves" eliminate costly reboring. This money-saving feature assures like-new engine efficiency throughout the lifetime of your truck.

For livelier power and continued high efficiency, buy the engine without an age limit. Sixes and, V-8's in gasoline or LP-Gas for every use . . . in a rugged Reo truck built for the job.

Gold Comet Six-OH 185 Gas

Brake hp: 185 @ 3400 rpm Torque: 320 @ 1200 rpm Bore: 4-1/4* Stroke: 4-1/4* Displacement: 362 cu. iñ.

Other Sixes: gasoline 170, 145, 130, and 110 hp

LP-Gas 160, 142 and 100 hp



REO DIVISION, The White Motor Company, Lansing, Mich.







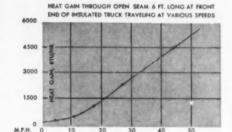
How to maintain temperature in a refrigerated truck body

Studies of insulated truck bodies and cargo trailers show that air infiltration through the outer shell and moisture pickup in the insulation reduce thermal efficiency considerably. In fact, they can add to the total heat load up to 50% and more, making it impossible to hold proper temperatures. In addition, the extra weight of accumulated water and ice can greatly increase operating costs and cut down on payload. Thus it's imperative that adequate air infiltration resistance be built into the body by sealing the outer shell.

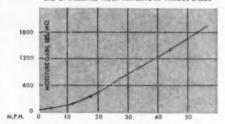
To guard against air infiltration in a truck with complex interior framing, first caulk, backcoat, or undercoat all seams and holes in the outer surfaces. Barrier film should be applied against the outer surfaces of the walls if the interior framing is not complex. Film should also be applied over the metal framing in walls and roof and between the insulation and inner liner in the floor.

Actually, the greater number of air barriers used, the better your protection will be. Suggested barrier films include tough plastic sheet, heavy aluminum foil, heavy kraft-asphalt paper, and preferably plastic-kraft paper or plastic-foil kraft paper laminates.

By effectively sealing out air and moisture, you get more efficient, economical performance from the insulation. In the walls, Fiberglas*, applied with a vapor seal, keeps heat gain to a minimum without taking up valuable space or adding appreciably to body weight. In the floor and roof, new, foamed plastic Armstrong Armalite (plain or self-extinguishing types) supplies vital load-bearing strength along with high efficiency. A free, new booklet gives full details on sealing truck bodies and cargo trailers plus information on Fiberglas, Armalite, and the complete line of Armstrong insulations for refrigerated bodies. For your copy, write Armstrong Cork Company, 3008 Rugby Street, Lancaster, Pennsylvania.

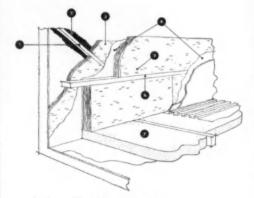


MOISTURE GAIN THROUGH OPEN SEAM 6 FT. LONG AT FRONT



These curves indicate heat gain and moisture gain through a seam 6 feet long and .045 inch wide in both the inner and outer shell of the front wall of a body 7 feet wide and 7 feet high. Between the shells is 6" of glass fiber insulation, unprotected in any manner against air infiltration. Outside conditions were assumed to be 100° F. with 60% relative humidity. The body operated at 0° F.

In the moisture gain curve, it's obvious that the body would not be operating at the conditions outlined at a continuous speed for one month. The data show the cumulative effect of houls over a period of time.



body sealing where interior

framing is complex

 Metal framing * 2. Back coating (barrier film, if possible) * 3. Fiberglas between framing * 4. Barrier film * 5. Fiberglas * 6. Wood framing 7. Armstrong Armalite.



Fiberglas * Armalite * Armaflex * Corkboard

*T. M. REG. U. S. PAT. OFF. OCFCORP.



that has the <u>GUTS</u> to give you a free year's service certificate!

No other heavy-duty impact wrench can match the power, speed and maintenance-free construction of a Black & Decker. B&D backs this statement with a free service certificate good for one full year.

From drive spindle to reversing ring, every part has been designed to eliminate breakdown problems. Features like B&D's specially selected spindle bearing, lifetested impact mechanism spring (compressed in tests over 100 million times); precision machined anvil and impactor give you a lightweight, heavy-duty impact wrench packed with power and speed.

Wherever a bolt must be spun—in motor, drive-line or body work, wheel changes, and general maintenance

LEADING JOBBERS EVERYWHERE SELL

Black & Decker

QUALITY ELECTRIC TOOLS



—a Black & Decker Impact Wrench does the job faster, with less fatigue, for more profit. Remember, only Black & Decker backs tool performance with a free year's service certificate! Put one to work for . . .

-as little as \$2.07 a week.

No interest or carrying charges.

THE BLACK & DECKER MFG. Co., Dept. 5408
Towson 4, Maryland (In Canada: Brockville, Ont.)
Let me know more about B&D Impact Wrenches—
FREE service certificate.

Name Title

Company.....

Company

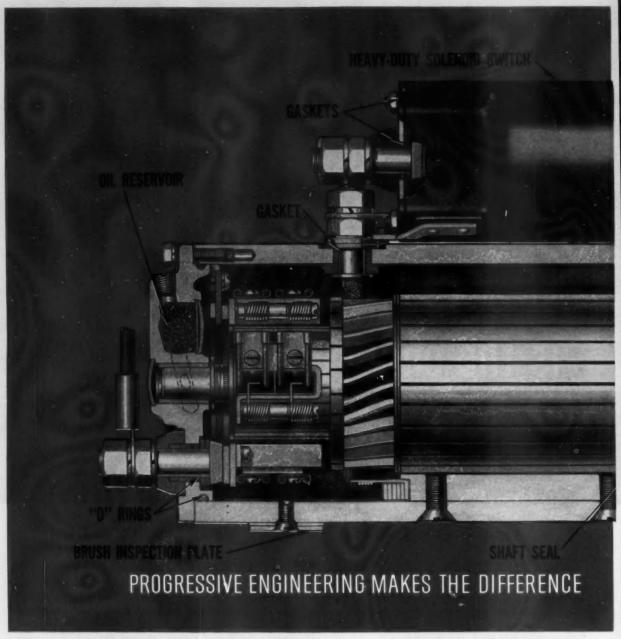
City.....Zone...State......











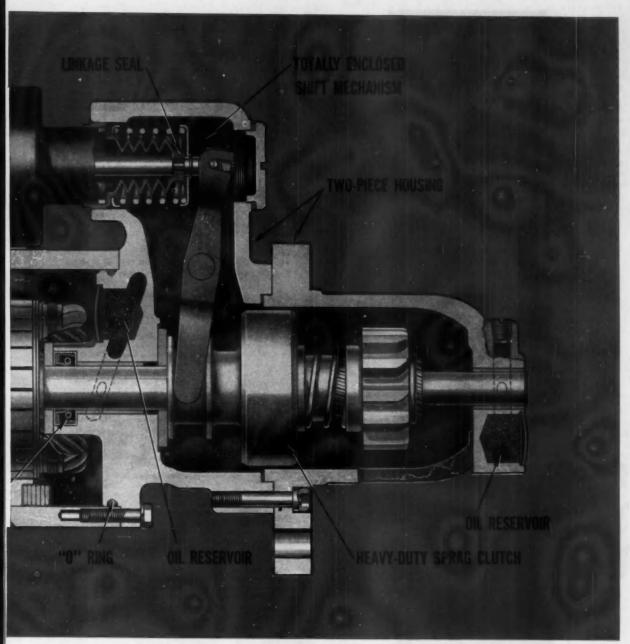
NOW FROM DELCO-REMY——NEW TOTALLY

Delco-Remy now offers a completely new series of solenoid-operated, over-running clutch type heavy-duty cranking motors with the shift mechanism entirely enclosed. Special two-piece drive housings can be assembled to permit a total of 24 different solenoid positions with respect to motor mounting. New 50% longer brushes, together with sealing rings (optional) and large oil reservoirs (optional), assure extra-long operating time between overhauls. And Delco-Remy design features keep these heavy-duty cranking motors positively engaged until the engine starts. Engine manufacturers are

invited to write directly to Delco-Remy for complete information and engineering assistance on the application of these new motors.

TOTALLY ENCLOSED DRIVE SHIFTING MECH-ANISM is protected against dirt, water, slush and ice. This enclosure plus the shaft seal and linkage seal also prevents transmission oil leakage.

TWO-PIECE DRIVE HOUSING DESIGN permits 24 different solenoid positions. Nose housings available in S.A.E. #2 and #3 mountings.



ENCLOSED HEAVY-DUTY CRANKING MOTORS

HEAVY-DUTY SOLENOID AND SWITCH provide positive pinion engagement and safely handle maximum starting current. Special seals increase contact life.

SPRAG CLUTCH DRIVE operates with non-chamfered ring gear. Pinion indexes on spiral spline, positively engages ring gear before power switches on, and does not become disengaged with sporadic engine firing.

HEAVIER BRUSH INSPECTION PLATES resist damage from use and handling—are sealed to prevent leakage to motor interior.

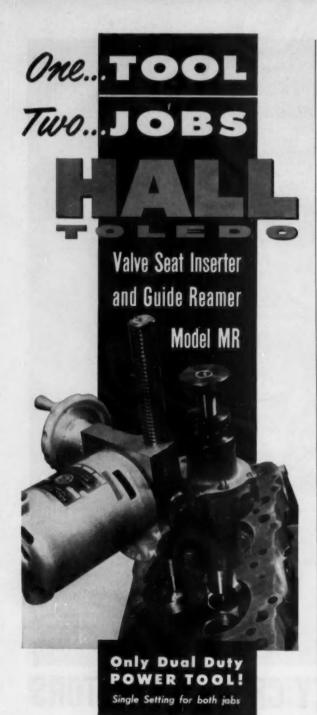
GENERAL MOTORS LEADS THE WAY-STARTING WITH

Delco-Remy



ELECTRICAL SYSTEMS

DELCO-REMY . DIVISION OF GENERAL MOTORS . ANDERSON, INDIANA



Assure Top Performance with Precision Workmanship

Now you can ream or core drill valve guides oversize and counterbore the head or block prior to inserting a valve seat ring, using the new HALL-TOLEDO MR. . . a single setting for both operations assures precision workmanship.

Whether you handle your own maintenance work or buy engine rebuilding service, insist on HALL-TOLEDO equipment for accurate work and complete performance satisfaction.

Write for complete information.

HALL-TOLEDO, INC.

2933 SOUTH AVENUE, TOLEBO, OHIO

DOINGS

AUGUST

- 10-13—Society of Automotive Engineers, National West Coast Meeting, Hotel Georgia, Vancouver, B. C.
- 28-32—Tri-State Safe Driver Truck Roadee, sponsored by the Pennsylvania, New Jersey, and Delaware Motor Truck Assna., New Castle County Airport, Wilmington, Del.
- 21-22—Illinois State Truck Roadeo, Pere Marquette Hotel, Peoria, Ill.
- 27-29-Alabama Truck Roadeo, Sumpter Smith Air Guard Base, Birmingham, Ala.
- 28-30—Minnesota Motor Transportation Assn., Annual Meeting, Breezy Point Lodge, Big Pelican Lake, Minn.

SEPTEMBER

- 9-11-Michigan Trucking Assn., Annual Convention, The Bancroft Hotel, Saginaw, Mich.
- 10-11—National Motor Equipment Interchange Committee, Regular Common Carrier Conference, American Trucking Amens., First Annual Meeting, Hotel Muchlebach, Kansas City, Mo.
- 10-12-Idaho Motor Transport Asan., Annual Meeting, Shore Lodge, McCall, Idaho.
- 14-15-National Bus Traffic Assn., 24th Annual Meeting, Drake Hotel, Chicago, Ill.
- 14-17—Society of Automotive Engineers, National Farm, Construction and Industrial Machinery Meeting, Production Forum and Display, Milwaukee Auditorium, Milwaukee, Wis.
- 14-17—National Truck Leasing System, 15th Annual Meeting, Ambassador Hotel, Chicago, Ill.
- 14-17-National Auto Accessory and Parts Exhibit, Las Vegas Hall, Las Vegas, Nev.
- Central Motor Freight Ann., Meeting, Conrad Hilton Hotel, Chicago, Ill.
- 15-16—Industrial Relations Committee, American Trucking Assns., Hotel Savery, Des Moines, Iowa.
- 15-17-National Assn. of Motor Bus Operators, Annual Meeting, Drake Hotel, Chicago, Ill.
- 16—Operations Council Steering Committee, American Trucking Assns., Meeting, ATA Bidg., Washington, D. C.
 16-18—Tennessee Motor Transport Assn., Silver Anniversary
- 16-18—Tennessee Motor Transport Assn., Silver Anniversary Convention, Nashville, Tenn. 20-23—American Transit Ausn., Annual Meeting, Hotel Leam-
- 20-23-American Transit Assn., Annual Meeting, Rolei Leamington, Minneapolis, Minn.
- 24-25—American Trucking Assn., National Truck Roadeo, Coliseum of The Kentucky Exposition Center, Louisville, Ky.
- 28-Oct. 1-American Welding Society, Fall Meeting, Sheraton-Cadillac Hotel, Detroit, Mich.

OCTOBER

- 5-7-Truck Body and Equipment Assn., Annual Convention and Exhibit, Sherman Hotel, Chicago, Ill.
- 6-8-Ohio-Pennsylvania Co-op Patrol, Convention, Chesterfield Hotel Inn, Cuyahoga Falls, Ohio.
- 15-20—Regular Common Carrier Conference, American Trucking Assns., Annual Membership Meeting, Los Angeles, Cal.
- 18-24—American Trucking Assas, Annual Convention, Statler and Biltmore Hotels, Los Angeles, Cal. 19-23—National Safety Congress and Exposition, Chicago, Ill. 25-28—National Lubricating Grease Institute, 27th Annual
- 25-28-National Lubricating Grease Institute, 27th Annual Meeting, Roosevelt Hotel, New Orleans, La. 28-28-Society of Automotive Engineers, National Transporta-
- tion Meeting, La Salle Hotel, Chicago, Ill. 27-28—Society of Automotive Engineers, National Diesel Meet-
- ing, La Salle Hotel, Chicago, Ill. 28-30—Society of Automotive Engineers, National Fuels and Lubricants Meeting, La Salle Hotel, Chicago, Ill.
- 28-38-Automotive Paris Rebuilders Assn., 12th Annual Convention and Trade Show, Hotel Roosevelt, New Orleans, La.

Only Eaton 2-Speed Axles Have these Cost-Saving Features

PLANETARY GEARING

—distributes wear over four rugged, slow-moving planetary gears, resulting in lower unit stress, reduced maintenance, and longer axle life.

SELF-CONTAINED AIR BRAKE

-makes quicker, safer stops. Simple design with fewer parts cuts relining time. Available on Eaton air brake models.

EXTRA-RUGGED CONSTRUCTION

—of housing and all moving parts eliminates the possibility of harmful distortion or misalignment under full load; holds maintenance to a minimum.





FORCED-FLOW LUBRICATION

—supplies positive lubrication to all moving axle parts, even at slowest vehicle speeds. Reduces wear; cuts repair bills.

POWER SHIFT CONTROL

-provides quick, easy shifts. Drivers use right ratio for road and load; take full advantage of 2-Speed benefits.

INDUCTALLOY AXLE SHAFTS

—made of alloy steel, with Eaton's exclusive method of dual-hardening truck shafts; last up to 10-times longer; keep trucks on the road.



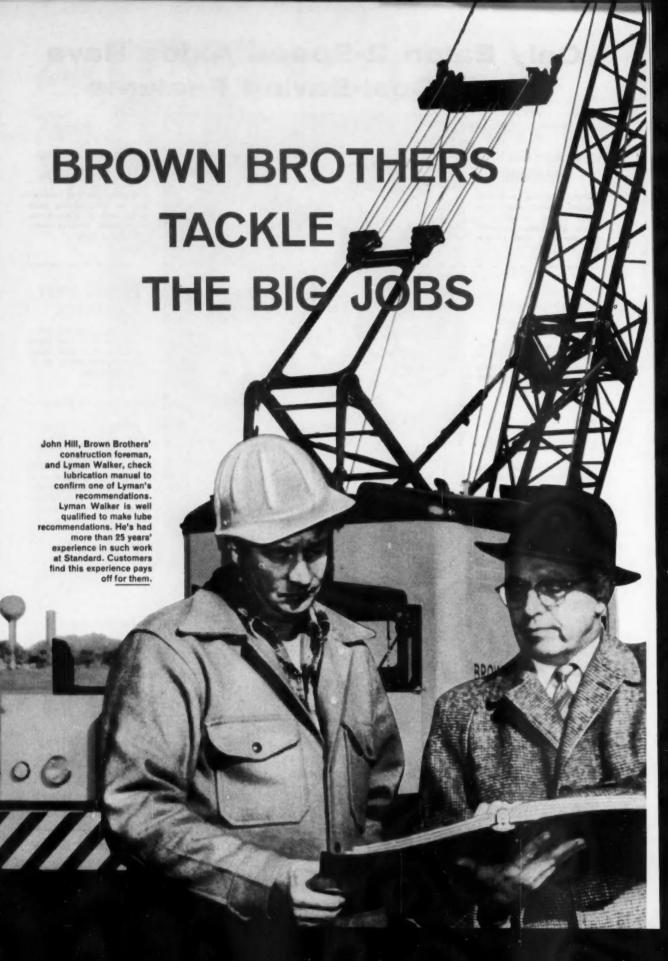
Ask Your Truck Dealer for Complete Information

More Than 2-Million Eaton Axles in Trucks Today



EATON

MANUFACTURING COMPANY
CLEVELAND, OHIO



STANOLUBE Motor Oils and Standard Oil technical service keep equipment on the move

When Brown Brothers Construction Company, Lansing, Michigan, tackles a job, they have the equipment to do the work. Likewise, they have what's needed to maintain equipment on the toughest jobs. They use Standard Oil products and technical service. To move equipment on highways, the contractor employs a 60-ton trailer unit powered by a 300 hp GM diesel, one of the largest such units in service in Michigan. For moving dirt, Brown Brothers use Twin-Power Euclid Scrapers.

For lubrication of all of its equipment, Brown Brothers relies on STANOLUBE Motor Oils. Why? Because these motor oils are especially formulated to take the heavy duty service imposed on them.

The technical service needed to see that equipment gets the lubrication required is provided by

Standard Oil lubrication specialist Lyman Walker. Lyman has more than 25 years' experience helping customers keep equipment in service and eliminating down-time due to lubrication failure.

Get this kind of help on your job. There's a Standard Oil lubrication specialist near you anywhere in the 15 Midwest or Rocky Mountain states. Call him. Or contact Standard Oil Company (Indiana), 910 South Michigan Avenue, Chicago 80, Illinois.

Quick facts about

STANOLUBE Motor Oils

- Made from highest quality base stock. Wax and unstable components removed.
- Detergent-dispersant additive controls severe deposit and wear problems caused by adverse fuel quality and heavy-duty conditions.
- Oxidation stability maintained and bearing corrosion controlled by special additives.
- Oil flow in all weather assured by exclusive pourpoint depressant.



ALUMINUM DUMP BODIES WEIGH 50% LESS.

Haul Up to 3,500 Lb of Extra Payload for Added Profit

Durable Alcoa Alloys Defy Denting to Save Maintenance Dollars



Dent Resistant

Modern Alcoa Aluminum alloys. advanced design and new fabricating techniques combine to give today's aluminum dump bodies far greater dent and impact resistance than standard steel construction. They withstand years of hard knocks and grueling service. Service records prove aluminum assures longer unit life with less maintenance.





Light Weight

When you trim a pound of dead weight from a rig, you take on an extra pound of payload worth a dollar per year in extra revenue. Producing earnings as much as 16 per cent above average, lightweight dump bodies of Alcoa® Aluminum can pay for themselves in less than a year of operation. From then on, it's all extra profit for the operator.





Corrosion Resistant

Aluminum's corrosion resistance helps hold down repair costs to boost earnings even further. Needing no protective coating of paint, aluminum alloys stand up under the corrosive and abrasive attack of many commonly hauled bulk materials. Chemicals, salt, high-sulfur coal, fertilizers, lime and sand can't inflict damage, so aluminum dump bodies stay new-looking far longer than steel, wash clean in half the time—and dump clean every time.

A case history booklet, which tells how many operators have increased profits by switching to aluminum, is yours for the asking. Write to Aluminum Company of America, 1770-H Alcoa Bldg., Pittsburgh 19, Pa.



PROOF: Aluminum Is Tougher Tougher than steel! Dump bodies built of Alcoa Aluminum alloy can take three times as much impact as steel, at half the weight.

Your Guide to the Best in Aluminum Value





For exciting drama watch "A.coa Presents" every Tuesday, ABC-TV, and the Emmy Award winning "Alcoa Theatre" alternate Mondays, NBC-TV

COMMERCIAL CAR JOURNAL, August, 1959

LUBE LOGIC These sleepers can



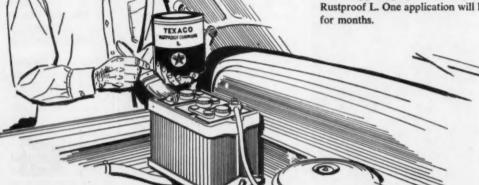
NOT ALWAYS A RELIABLE OIL-CHANGE YARDSTICK

We may start an argument on this one, but the fact is that mileage is not always a reliable standard for determining oil-change intervals. Your method of change should depend on your type of operation. 500 miles of stop-and-start city driving, for example, takes a lot more out of an engine than 1,000 miles of turnpike. If your trucks stay mostly within the city limits, you can probably get a much better idea of when to change the oil by adding up the hours of driving. Your TAE* can help you pick the oil-change yardstick that will give you maximum engine protection in your particular operation.

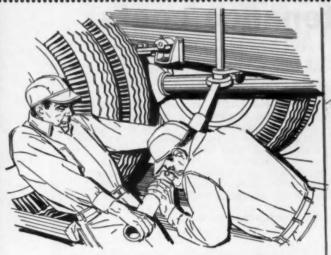


EASY WAY TO AVOID BATTERY DEPOSITS

Don't let battery deposits climb up your cables; you may want to get them off someday. Easiest way to keep this from happening: paint battery terminals with Texaco Rustproof L. One application will keep them deposit-free for months.

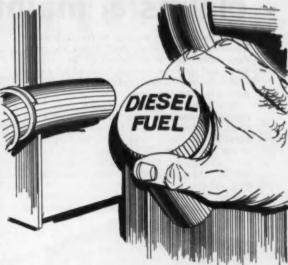


stop the clock on maintenance time!



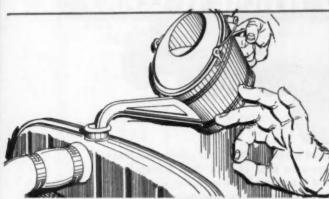
HOW TO AVOID THAT FROZEN BOLT

Ever spend six hours fighting a U-bolt that's decided to corrode itself tight? We've seen it happen, and it's an unforgettable experience—especially when we told them they could have ducked all that trouble for the price of a pack of gum. When they let us back in, we showed them how just a dash of Texaco Threadtex could keep their bolt rust-free permanently. Ask your TAE* for a demonstration.



IDENTIFY THE FUEL YOU WANT

Let one sleepy service station attendant put gasoline in your diesel tank and you'll be "bailing out over Denver." It's happened. Best way to avoid its happening to you is to mark your fill cap "Diesel fuel" or "Gasoline." Then nobody should make any mistakes.



NEW WAY TO KEEP RUST OUT OF YOUR RADIATOR

Rust in your cooling system can start damaging your engine long before your radiator blows its top. Don't let it start. Some anti-freezes—such as Texaco P T—will do the job, but if you've already flushed your anti-freeze then it's time to pour in a little Texaco Soluble Oil C. It will give you summer-long protection for pennies. Your TAE* can give you the details.



*TEXACO AUTOMOTIVE ENGINEERS

Every month we'll bring you a batch of "sleepers"—little angles, so easy to overlook, where big savings in time and money can be made. But month in, month out, your local Texaco Automotive Engineer is the best source of money-saving lubrication ideas. Don't forget that "Lubrication is a major factor in cost control." Texaco Inc., Fleet Sales Division, 135 East 42nd Street, Dept. CCJ-41.

GACO N700A prevents leakage, reduces damage claims & maintenance costs

On-the-road service is rough on freight trailers. Weaving, weight "distortion", shock and twist cause seam and rivet loosening. The result: water and moisture leakage, followed by water-soaked cargo, damage claims, and finally out-of-service maintenance costs.

Here's an unsolicited statement made by a reputable trucking company executive in speaking of dry freight trailers: "We spend annually for damage claims, an amount equal to our gross profit. This could be reduced substantially, if we could eliminate damage to cartons and merchandise resulting from moisture leakage."

Gaco N700A is the performance-proven solution to the leakage problem. Many large

trucking companies have furnished testimony that these tough elastic coatings applied both inside and outside of the trailers insure against icing, air infiltration, weight gain and heat loss.

Gaco N700A coating, applied by brush or spray, becomes an extremely durable, abrasion resistant coating that adheres to all metals. That's why it does the job in keeping out air and water. Because of its flexibility and adhesion Gaco N700A will not crack or peel even when subjected to the twisting and shock of rough road service. Rates for Gaco "insurance" are low, too. In less than 1 man hour a 35 ft. dry freight trailer can be entirely coated with Gaco N700A for less than \$15.00.





THE MARK OF CORROSION PROTECTION

GATES ENGINEERING COMPANY

Wilmington 99, Delaware

Pioneer Leader In Protective Coatings

Authorized Distributors in Principal Cities U.S.A.

Pick Your PROTECTION!

There's a DELVAC OIL for Every Type of Duty ... Every Kind of Automotive Diesel and Gasoline Engine!



DELVAC OIL 900

SERIES

For normal heavy-duty performance in a wide variety of fleets, contractors' machinery and allied equipment.

Five Grades

Delvac Oil 910 (SAE 10W) Delvac Oil 920 (SAE 20-20W) Delvac Oil 930 (SAE 30) Delvac Oil 940 (SAE 40) Delvac Oil 950 (SAE 50)

API Service Classifications MS. DG

DELVAC OIL

S 200 SERIES For Caterpillar and other diesel engines requiring a Series 3 oil for extreme, heavy-duty conditions; ideal for mixed fleets equipped with various diesel and gasoline engines.

Two Grades

Delvac Oil S 210 (SAE 10W-20) Delvac Oil S 230 (SAE 30)

API Service Classifications DS

DELVAC OIL

S 100 SERIES For diesel and gasoline engines requiring Supplement 1 detergent-dispersive characteristics: heavy-duty performance level between Delvac Oil 5 200 Series and Delvac Oil 900 Series.

For superior all-weather use in all types of commercial vehicles—trucks, buses, contractors'

Two Grades

Delvac Oil S 110 (SAE 10W-20) Delvac Oil S 130 (SAE 30)

Service Classification:

DELVAC

Special

equipment—using diesel, gasoline or LPG engines, under all kinds of operating conditions.

Multigraded

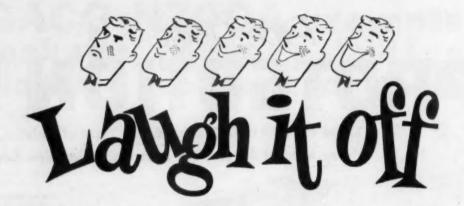
(SAE 10W-20W-30) with Supplement 1 detergency level Service Classifications MS, DG, DM

THE excellent performance properties of the L Delvac oils help keep engines cleaner longer, help fight wear and extend engine life to overhaul, cut down excessive fuel and oil consumption rates. See your Mobil representative about these oils and also about Mobil's great PM Systems for truck-bus fleets and contractors.

Porrect Lubrication Another Reason

You're Miles Ahead with Mobil

MOBIL OIL COMPANY, A Division of Socony Mobil Oil Co., Inc. Affiliated Companies: General Petroleum Corporation, Magnolia Petroleum Company



Dynamometer Specialist: "It's getting so a man can't have a little snakebite remedy around the house anymore. Everytime I bring in a bottle the old lady grabs it and hides it."

Shop Foreman: "Well, my wife's the same way. But no matter where she hides my liquor I can always find it. You see, I have a fifth sense."

003

Slim 'N Greasy, our shop roustabout, says: "I call my girl 'Baseball' because she won't play without a diamond."

cos

Having bolstered himself with a few stiff shots of bourbon before going to the dentist, the Truck Mechanic sank into a chair in the reception room. Beside him sat a fussy old maid.

After a moment, she looked at him scornfully and said, "Whiskey is an abomination. It nauseates me."

"Well, Ma'am, I'll tell you, you may have to do what a friend of mine did—quit the stuff."

001

Shop Foreman: "I'm looking for a gift for my girl. I want something that will make her face light up; something that will make her eyes sparkle; something that will rekindle the fire of love."

Jeweler: "Well, if you're trying to burn her up, don't give her anything."

COJ

JUDGE: "WELL, NOW, HOW DID THE TROUBLE START?"

FREIGHT CHECKER: "IT'S LIKE THIS, YOUR HONOR, SHE ASKED ME TO PLAY AROUND AND I DIDN'T KNOW SHE WAS A GOLFER." Maintenance Steno: "I hear that new boy friend of yours is very talented on the athletic field."

Traffic Steno: "Yes, he really is. We park there every night."

CC.

Irate Trucker: "Now see here young man, my daughter is just seventeen and she's too young to marry. Besides, it's not easy to support a wife. Do you have the financial means to take good care of my daughter?"

Maintenance Parts Clerk: "Well, it's like this, sir. On my salary, I could take care maybe of about 25 per cent of her. And frankly, sir, that would be about all I really need."

"Cici Jay"



"The Bess is right! Good mechanics are hard to find!"

DOCTOR: "YOU HAVE ACUTE APPEN-

FREIGHT CLAIM STENO: "LISTEN, DOC, I CAME HERE TO BE EXAMINED, NOT ADMIRED."

003

Catty Cora Says: "Secretaries have a tough time. If they're good, their bosses don't like them. If they're bad, their bosses' wives don't like them."

COJ

Indignant Woman: "I thought this was supposed to be a respectable hotel!"

Room Clerk: "Why it is, madam. It most certainly is. Is there something wrong?"

Indignant Female: "Well, as I was waiting for the elevator I saw one of those men from the trucking convention chasing a girl down the hall."

Room Clerk: "Did he catch her?"
Indianant Woman: "No."

Room Clerk: "Then the hotel remains respectable."

003

Maintenance Dept. Steno: "Doctor, I need help bad. It's got so every time a boy takes me out I always end up saying 'yes.' All day long thereafter I feel guilty and depressed."

Specialist: "I see. Undoubtedly you want me to strengthen your will power."

Maintenance Dept. Steno: "Heavens to betsy no! I want you to weaken my conscience."

001

DOCTOR: WE CAN ADD AT LEAST THIRTY YEARS TO YOUR LIFE IF YOU'LL GIVE UP WINE, WOMEN AND SONG."

MOTOR FREIGHT SALESMAN: "I'LL SETTLE FOR TEN YEARS, DOC. I NEVER COULD CARRY A TUNE."

Resume Work



Batteries work—hard. They seldom rest. To start a motor they use up a tremendous amount of energy—over long hauls the battery charges—sometimes too rapidly. When stopped, the battery discharges.

For long satisfactory service and life, the amount of charge and discharge can be controlled to suit each type of driving . . .

depending on stops, starts, long hauls and so on.

We have helped many fleet owners cut their battery costs with the Gould-National Fleet Battery Maintenance Plan. We'll be glad to help you.

There is no charge for this service. Use the coupon below or write Fleet Dept., Gould-National Batteries, Inc., St. Paul 1, Minn.

-	We are interested in your Fleet Battery Mai Have your service engineer call us for ar	
Gould-National	CO. NAME	
BATTERIES, INC.	N NA NAME	
WIN	STREET.	
Children Committee	CITYSTATE_	

Sundstrand drives protect quality, cut refrigeration costs for Tropicana



Three types of Tropicana trucks equipped with Sundstrand hydraulic truck refrigeration drives that provide constant output at all truck speeds.



Maintenance supervisor inspects power take-off mounting of Sundstrand constant speed drive pump. Maintenance needs are down from former method.

Refrigeration unit over cab houses two remaining components of Sundstrand system, small reservoir and piston-type motor that drives refrigeration compressor.

Ease of operation, minimum maintenance, and simple driver orientation are benefits resulting from the use of Sundstrand truck refrigeration drives on three types of retail delivery trucks used in Eastern and Midwestern cities by Tropicana Products, Inc., Bradenton, Florida. Tropicana processes fresh orange juice and insures peak flavor by exercising close control over temperatures until the moment it is placed in coolers at the retail outlet.

Properly functioning refrigeration equipment is an important part of the Tropicana success story. Sundstrand con-

stant speed truck refrigeration drives are used in over-theengine mountings on 26 GMC 1-ton vending delivery trucks and 30 standard city delivery and walk-in city delivery trucks (both GMC and White). Power take-off mounting is used on 24 urban delivery trucks (White 10-wheelers).

These advantages are reported by Tropicana's maintenance superintendent: (1) Quieter operation, (2) lower cost operation, (3) lower maintenance costs, (4) less likely to break down, and (5) simple electrical hookup for standby operation, no declutching required.



SUNDSTRAND HYDRAULICS

DIVISION OF SUNDSTRAND CORPORATION

2210 Harrison Ave., Rockford, III.—Eastern Sales Office; 89 Summit Ave., Summit, N. J.

AIRCRAFT AND INDUSTRIAL HYDRAULIC TRANSMISSIONS, PUMPS, MOTORS AND VALVES • OIL BURNER PUMPS • AIR SANDERS • LATHES, MILLING, BROACHING AND SPECIAL MACHINES BROACHING TOOLS • MAGNETIC CHUCKS • PACKAGING MACHINERY

Takes a beating without chipping...

No wonder Du Pont DULUX® Enamel is specified for leading fleets



PAINT PILE DRIVER. A weighted hammer comes crashing down on a panel painted with "Dulux" Enamel. The metal is repeatedly dented, but "Dulux" does not chip or crack, proving its outstanding durability.



THE TUCSON RAPID TRANSIT COMPANY runs buses roundthe-calendar under blistering desert sun. That's why all 35 units use "Dulux" Enamel to prolong finish life and beauty, protect valuable equipment.



THE OLSON TRANSPORTATION COMPANY spreads its name over thousands of highway miles with striking "Dulux" colors. This great finish resists knocks and weathering, too.

To build a reputation for durability on trucks and buses, a finish must graduate at the head of its class from the school of hard knocks. And look at the hard knocks "Dulux" Enamel takes for a final exam. That's to make sure it stands up to slambang loading and flying gravel.

Other equally punishing tests insure re-

sistance to harsh sunlight and dew, to salt air, to flexing and to ice and heat. Still others measure fast drying and other features that make "Dulux" popular in the paint shop.

TRUE ECONOMY. When you put Du Pont "Dulux" on your fleet, you take advantage of the continuing experience of the world's greatest paint laboratory. Your paint shop will find "Dulux" easy-working, reliable, economical. It will stay out of the paint shop longer, snap back bright and beautiful at every washdown. So remember, specify Du Pont "Dulux" Enamel.

E. I. du Pont de Nemours & Co. (Inc.), Finishes Div., Wilmington 98, Del.

Du Pont "Dulux" Enamel





CAN YOU AFFORD THE "SAVINGS" ON CUT-RATE BRAKE BLOCKS?

A penny saved is a penny earned—sometimes. But not when it comes to buying replacement brake blocks. When you buy on price, it isn't a saving but an invitation to disaster—in a hurry! The hot-shot salesman who pushes his cut-rate brake blocks and linings as "just as good" as reputable brands would cool off in a hurry if he had to drive the luckless rigs they go on.

"Now you see it, now you don't" describes the value in these inferior brake blocks. They look almost exactly like quality products.

Appearance-wise, you can't tell the difference. Nobody can, unless he happens to be an experienced brake lining engineer. But the difference is there, and inevitably it shows up when the going gets tough. Unfortunately, that's when dependability is needed most. A hill, a curve, heavy traffic, heavy load—ride it out and pray when the brakes are gone.

The manufacturer selling on price makes sure his linings look good, but he makes sure of little else. The only thing he has to offer is a deliberate resemblance to quality products, and a price to catch the unwary. And that's no trick when his linings cost him practically nothing to make, using poor materials and highly inadequate equipment.

There's only one way to be sure that the replacement brake blocks you install will provide dependable, safe performance over thousands of miles of heavy-duty use . . . that they'll be on call when they're needed every time. That one way is to specify "name brand" blocks, such as those made by Bendix or one of the other reputable manufacturers.

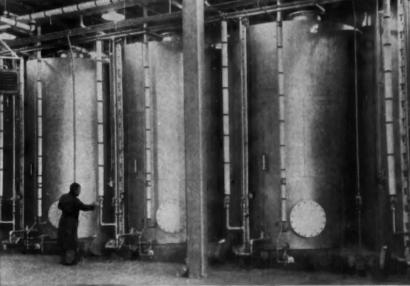
When you select a replacement brand, keep this in mind: Automobile and truck manufacturers go to great lengths to protect their customers by installing only brake linings made by responsible people. And, because Bendix has so satisfied these manufacturers, our linings are used on more new vehicles than any other brand.

It takes more than a bucket and a kitchen stove to manufacture quality brake blocks



NOTHING IS LEFT TO CHANCE at Bendix-Eclipse when it comes to thorough testing of brake blacks. Special test trucks like this one measure broking characteristics of our blocks under every conceivable kind of operating condition,

ONE EXAMPLE of the precision equipment used in manufacturing Bendix-Eclipse brake blacks is a battery of special machine tools which drill and counterbore block holes to the exact specifications required for perfect fits on various



LARGE QUANTITIES of special Bendix-manufactured resins are kept in these special storage tanks

AT BENDIX-ECLIPSE® brake blocks are formed in single and double wave maids under tons of pressure and rigidly controlled temperatures. Result: a uniform, dense, strong, and tough friction

ready for use in Bendix-Eclipse brake linings and for sale to other industries.

BENDIX-ECLIPSE

Marshall-Eclipse Division

Troy, New York





COMMERCIAL CAR JOURNAL, August, 1959

NOW! up to 2,000 more *payload profit pounds when you PUT THE PAIR ON AIR

Start trucking on air and payloads can step up as much as one full ton per unit! New AIRIDE airsprings by Firestone for truck tractors and trailers now make it practical to cut gross vehicle weights with *improved* cargo safety. AIRIDE, the large-capacity, round-type airspring, has been fleet-tested and proved over 750 million road miles.

Because AIRIDE airsprings prevent road shock from reaching the tank, whether loaded or empty, its life is greatly increased. In addition, it can be built lighter for extra payload capacity. AIRIDE airsprings lower damage claims, cut driver fatigue, maintenance expense and tire wear like never before. For more payload capacity with less operating cost, put the pair—both truck tractors and

trailers—on air! Get full details with Firestone's free AIRIDE booklet today. Please write Firestone Industrial Products Company, Noblesville, Indiana.





Proved by fleet operators and intercity buses through years of service... totaling over 750 million road miles!

AIRIDE®AIRSPRINGS for truck tractors and trailers by

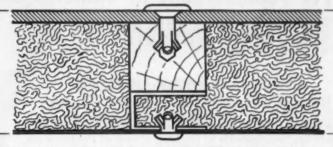


Copyright 1959, The Firestone Tire & Rubber Company

"We're always after more speed ... so we use Southco Drive Rivets on a thousand-and-one jobs"



AND ON REEFERS THEY'RE GREAT BECAUSE YOU WORK FROM ONLY ONE SIDE



FIVE TYPES FOR EVERY PURPOSE









FREE! RIVET FOLDER

Get your free copy of Southco's folder on Drive Rivets for the Automotive Indusbrive Rivets for the Automotive Indus try. Contains information and specifica-tions on aluminum and steel Drive Rivets. Write today to: SOUTHCO DIVISION, South Chester Corpo-ration, 228 Industrial Highway, Lester, Pa.



STENERS IMPROVE TRUCK BODY,

LOCAL SOUTHCO DISTRIBUTOR



HUNG-SOL 536 o-Termina

For replacement in vehicles originally equipped with standard two-terminal flashers

Like the three-terminal 534 and 535. it's built with twice the life of other flashers

For the first time . . . a two-terminal heavy duty flasher that meets the requirements of the biggest part of the truck replacement market as well as the vast majority of passenger car trailer applications — U-haul, boat and house trailers.

The new Tung-Sol 12-volt 536 is identical in performance with the 534 three-terminal type: It flashes one to six 21cp or 32cp lamps without a perceptible change in the flashing rate . . . delivers an instantaneous four-lamp emergency warning . . . lasts twice the life of other flashers . . . insures more positive action and great dependability. Electroswitch Division, Tung-Sol Electric Inc., Newark 4, New Jersey



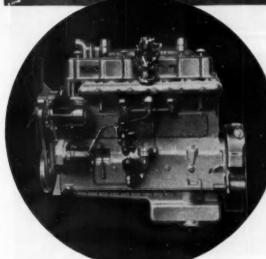


TUNG-SOL-First in Flashers

On the milk run ... OR ANY RUN



PETERBILT truck—tire size: 10:00 x 20; rear axle ratio: 5.91; gross vehicle weight: 76,800 lbs.—is powered with Waukesha 145-GZB engine.



Waukesha 145-GZB High Output Gasoline Engine, 5%-in. bore x 6-in. stroke, 817 cu. in. displacement, up to 260 hp at 2400 rpm.

WAUKESHA MOTOR COMPANY WAUKESHA, WISCONSIN

New York • Tulsa • Los Angeles Factories: Waukesha, Wisconsin and Clinton, lowa where the pay-off is on pay-load

WAUKESHA transport ENGINES

Short runs or long hauls—the pay-off is on pay-load that gets there faster. A rare combination of extra power plus extra speed, with rugged reliability—the Waukesha 145-GZB High Output Engine keeps trucks on schedule with day-after-day all-ways-dependable regularity. It's a high compression, overhead valve gasoline engine with interchangeable cylinder heads, removable wet sleeve cylinders, water-heated intake manifold, vibration dampener, heavy-duty aluminum pistons, 7-bearing, 3½-inch crankshaft fully counterbalanced and many other fully-proved features, all detailed in Bulletin 1553.

ZENITH EXPERIENCE WITH CARBURETORS PAYS OFF IN ANY FIELD



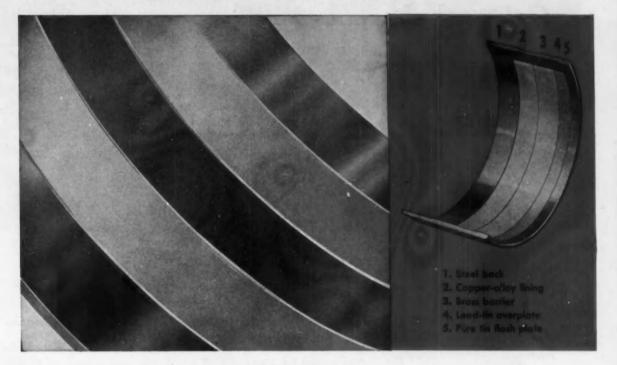
If you are interested in engine performance, you'll be interested in what Zenith® experience can do for you. Trucks...buses...tractors...industrial engines...boats...off-the-road vehicles—the record shows Zenith has more experience in designing and building carburetors in more different fields than any manufacturer you can name!

Because Zenith can call upon so much experience with more types of engines, the above firms know they are in good hands when they specify Zenith Carburetors. As you, too, will discover: Zenith experience provides important extra benefits. For detailed information, write Zenith Carburetor Division, 696 Hart Avenue, Detroit 14, Michigan.

Zenith Carburetor Division



Better products, faster, from your Federal-Mogul jobber:



Federal-Mogul actually "pours" extra thousands of miles into every sintered engine bearing



Pure copper-lead powder is one of five layers—each vital to longer bearing life, lower maintenance costs

Every tiny particle of this super-fine metal powder is an alloy—a perfect proportion of copper for strength, and lead for softness. Federal-Mogul makes it by a patented process to give bearings extra-long service life.

Sintered engine bearings actually are made in five layers: 1. Steel back for strength and bond; 2. Copper-lead sintered lining; 3. Brass barrier for lining stability; 4. Lead-tin overplate for smoother "break-in"; 5. Pure tin flash plating for corrosion resistance. They're the finest-quality engine bearings on the market today.

No matter what type or size you need, Federal-Mogul has the *right* engine bearing—quality-engineered to go in easier, stay in longer. That's why fleet owners prefer them 2 to 1! And your Federal-Mogul jobber gives fastest service. Call today!

FEDERAL-MOGUL ENGINE BEARINGS

FEDERAL-MOGUL SERVICE

DIVISION OF FEDERAL-MOGUL-BOWER BEARINGS, INC. . DETROIT 13, MICHIGAN



Only with the ALL NEW

Dayton Thorobred DEEP SKID XDL

do you get these exclusive features!



AYTON'S All
New, All Nylon Deep Skid XDL
represents an entirely new concept of "highway lug" type tire
design and engineering . . . for
greatest power-wheel mileage
with maximum anti-skid performance in severe, fast scheduled, super highway service.

Here's How The New XDL Tire Has Performed In Rugged Tests . . . "134,000 miles before retreading on a year round, coast to coast run . . . a real tire-killing, two man, around the clock operation".

"70,000 miles—and still running—on a single-axle drive tractor on fast-scheduled super highway route".

The Reason For This Outstanding Performance is a new tread design that gives you (1) scientifically engineered high-angle lug design that maintains uniform load support within 5.07% of the maximum attainable, (2) greater load-supporting rubber-to-road contact than any tire of a like type and (3) a 59% deeper non-skid tread. Similar types of highway lug tires have 100% tread contact at one instant, only 42% the next. This creates excessive "heel-and-toe" wear (the result of variations in the amount of tread in contact with the road at any one time), and rapid wear.

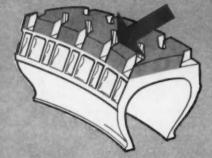
More And Better Recaps At Lower Cost is another advantage found only in the Dayton Thorobred Deep Skid XDL. The exclusive retread dam permits successful top treading without rubber overflow between the shoulder buttresses, which often results in poor tread adhesion. It assures new tire appearance to top treads and eliminates the need for expensive full treads. And the XDL's super-strength, electronically-processed Nylon cord body is virtually indesstructible . . . is built to take retread after retread for lowest cost per mile operation.

Dayton Thorobred

The Dayton Rubber Company • Tire Division • Dayton 1, Ohio

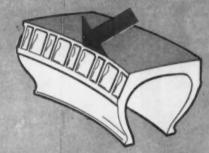
A COMPLETE LINE OF TRUCK AND PASSENGER CAR TIRES

HIGH-ANGLE CROSS RIB DESIGN



gives more constant tread rubber support than any similar, tire . . . puts more rubber on the road for longer, slower, more even wear.

EXCLUSIVE RETREAD DAM



provides perfect shoulder-to-shoulder foundation for lew-cost top tread . . . eliminates necessity for expensive full tread —the only way similar competitive tires can be retreaded.

YOU SAVE IN TWO WAYS WITH XDL'S

- You get more mileage per original tread, due to a 59% bonus in tread depth plus the slow wearing advantages of Dayton's new—and exclusive—high angle lugs.
- You get more—and better— recaps, at lower cost, with inexpensive top treads due to Dayton's exclusive reretread dam and superstrength Nylon cord body.

Ask your Dayton Distributor to explain all of the advantages of the amazing new Deep Skid XDL tire . . . and how they will mean phenomenal savings to you in your operation.



AND TUBES



Air temperature 108°... brake temperature 600°



Bonded Brake Shoe Exchange Riveted Heavy Duty Lining Lining You could fry an egg on the pavement. You could burn a roast on the brake drums.

On runs like this, ordinary brake linings glaze and fade. But not American Brakeblok linings.

Grades, desert heat, continuous braking don't steal their stopping power. Frictioneered for life, these solid, unyielding blocks maintain top friction value right down to the bolt top.

Surveys show American Brakeblok linings are preferred by one fifth of America's fleet operators... far more than any other leading brand. Small wonder... they're safer and longer lasting. Bring your safety up to date. Specify 1959 stopping power by American Brakeblok.

AMERICA'S SAFETY BRAKE LINING



AMERICAN BRAKEBLOK DIVISION • Executive Offices. P. O. Box 21, Birmingham, Mich.

Plants in Winchester, Vs. • Cleveland, Ohio • Hillburn, N. Y. • Lindsay, Ont. • Mexico City, Mexico • Gif, France



"Stainless Steel tankers cut our cleaning time 50%"

SAYS BOB MATLACK, EXECUTIVE VICE PRESIDENT, E. BROOKE MATLACK, PHILADELPHIA, PA.

"There are about 200 different liquids represented in the one-hundred-million gallons that we haul every month," says Mr. Matlack. "We handle everything from edibles, like corn syrups and liquid sugars, to the heavy black coal tars and resins. And there's a whole range of chemicals—including acids.

"You can see the problem—after each delivery we have to be *sure* that our tanker is thoroughly cleaned out so that a new shipment isn't contaminated. This is where Stainless Steel tankers are invaluable. The Stainless resists corrosion so the inside of the tank stays bright and smooth—there's no place for residue to stick and no flakes of rust. We spray a hot detergent solvent into the tank, rinse it out with water, and then dry it with a blast of warm air. The whole job takes less than two hours.

"It takes about four hours to clean other tanks, and then we're never sure that they're really clean. We have to be careful about what they haul—there's always the danger of contamination.

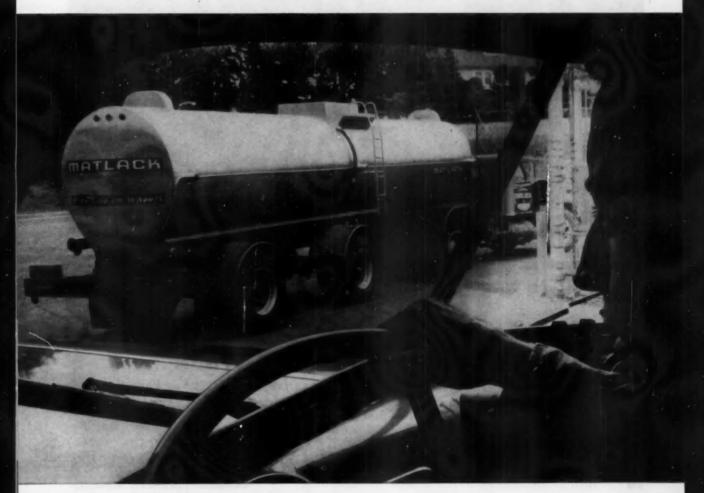
"We estimate that each of our Stainless Steel tankers save \$2000 a year in cleaning costs. And there's no telling how much additional business they've brought us through customer confidence in *clean* shipments."

USS is a registered trademark



United States Steel Corporation — Pittsburgh American Steel & Wire — Cleveland National Tube — Pittsburgh Celumbia-Gensva Steel — San Francisce Tennessee Coal & Iron — Fairfield, Alebama United States Steel Supply — Steel Service Center Initial States Steel Supply — Steel Service Center

United States Steel



Trailer shown was made by Fruehauf Trailer Company



GENERAL Deep Cross Lug

Haul after haul, the great new General D. C. L. is proving its reputation for exceptional strength and safety . . . for astounding low-cost mileage. Built with a 60% deeper tread on an exclusive Nygen Cord body, The General D. C. L. delivers peak protection against blow-outs, bruises and breaks on all runs, under all conditions. Take a lead from other cost-conscious and convinced fleet owners and begin rolling your units on General D. C. L.'s now.

BUILT WITH NYGEN[®]...

engineered to deliver loads of low cost mileage

THE GENERAL TIRE & RUBBER COMPANY . Akron, Ohio

SPECIAL HEAVY DUTY TRUCK **PISTONS**

MI-RESIST RONDED TOP GROOVE PROTECTOR

STEEL CAST-IN TOP GROOVE PROTECTOR



CONTROLS EXPANSION AND PREVENTS COLLAPSE

Who but McQUAY-NORRIS furnishes both?



See your McQuay-Norris Wholesaler for quick service.

McQUAY-NORRIS Manufacturing Co., St. Louis . Toronto



LIBRARY

REVIEWING THE BEST IN CURRENT PUBLICATIONS ON MAINTENANCE, EQUIPMENT AND SAFETY OF INTEREST TO TRUCK, BUS AND CONSTRUCTION FLEET OPERATORS

How to Avoid Your Next Accident

Here's a new "do-it-yourself" approach to highway safety. It's called "Your Next Accident — and How to Avoid It." The booklet is well illustrated and shows five ways any driver can reduce the chances of having an accident. A quiz at the end permits the driver to gage his own accident awareness. It is suitable for driver training programs also. Single copies are 25¢ each with the price dropping to 9¢ each for orders of 100 or more.

Write the publisher, Channing L. Bete Co., Greenfield, Mass., for more information.

Rebuild Lift Trucks, or Buy New Ones

What are the factors you should know when deciding whether to rebuild your present lift trucks or buy new models? These and other questions are answered in a free four-page folder recently published by Elwell-Parker. You'll find out if rebuilding is practical in terms of maintenance costs and hours of service, and what parts normally require rebuilding. Terminal managers and warehouse operators will find this folder a helpful guide.

Contact the Ewell-Parker Electric Co., 4205 St. Clair Ave., Cleveland 3, Ohio.

Good PM Boosts Battery Life

Exide has published a revised edition of its "Facts About Storage Batteries." In it you'll find tips for good battery PM. There are also sections on battery charging and testing. One section is devoted to filling dry-charged batteries. The booklet is easy to read and suitable for mechanic training. Copies are free.

Write to Exide Automotive Div., P. O. Box UZ 6266, Cleveland 1, Ohio.

Boost Brake Life Through Good PM

Grizzly Brake Division's "More For Your Dollar" booklet has many tips for improving brake life and brake PM. First section gives braking principles with charts and pictures showing temperature effect on lining life. Second section shows importance of turning or replacing drums which are bellmouthed, out-of-round, worn or heatchecked. Last section has a chart listing common block problems and how to correct them.

The booklet is available through the Grizzly Brake Division, 700 Caroline St., Paulding, Ohio.

White Offers Driver Training Aids

The White Motor Co. is offering nine driver training forms and a driver selection and training book to fleet operators. It's a valuable aid in selecting and hiring new drivers. One form has questions which, when answered by the prospective driver, give the fleet operator plenty of information which he can evaluate. Other forms include a traffic and driver knowledge test, and traffic road tests. The accompanying 50-page booklet shows how to use the forms.

The forms and booklet are available from The White Motor Co., Sales Promotion Dept., 842 E. 79th St., Cleveland 1, Ohio. Price is 50¢ each to cover printing and postage.

How to Trouble-Shoot Carburetors

A trouble-shooting chart for carburetor tune-up is being offered free by Hygrade Products Div., Standard Motor Products, Inc. It locates the sources of seven common types of carburetor trouble and shows the causes and cures. The chart also shows if it's necessary to remove the carburetor to fix the trouble.

Write Hygrade Products Div., Standard Motor Products, Inc., 37-18 Northern Blvd., Long Island City 1, N. Y.

Statistics Aid Accident Control

Statistical controls help detect new accident causes and patterns. A new system is described in detail in a report from the Department of Defense. It shows fast, accurate analytical methods which safety men can use in their safety and accident prevention programs. Specific examples show how to apply the techniques to everyday problems. Separate sections cover highway accidents industrial accidents and methods of evaluating safety programs. Full title of the report is Manual for the Application of Statistical Techniques for Use in Accident Control, Report No. PB 151055.

Write to the Office of Technical Services, U. S. Dept. of Commerce, Washington 25, D. C. Price is \$2.

Improve Your Defensive Driving

The National Safety Council has published a booklet on defensive driving written especially for the professional driver. It's called "A Professional Code for Defensive Driving."

Single copies are free from the National Safety Council, 425 N. Michigan Ave., Chicago 11, Ill.

Don't miss listings of current literature from fleet suppliers in the New Products Section of this issue



RED BLOCK Superiority
Proved by Millions of Miles of
Rugged Service

Throughout the trucking industry . . . and especially in heavy hauling operations on-or-off the highway . . . RED BLOCK has delivered safety, economy and all-round performance unequalled by any other blocks in similar service. For 10 years RED BLOCK has been recognized as the short name for World Bestos RED BLOCK COMBINATION . . . the only true brake block combination on the market.

there is only **ONE** true heavy duty brake block "combination"—

WORLD BESTOS RED BLOCK

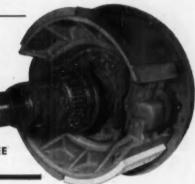
- The only brake block system of any kind with an unconditional NO-FADE GUARANTEE (heat or water)
- Safe, dependable stopping power proven under the most abusive load and road conditions
- Longer lining life . . . longer drum life . . . proven by actual fleet operating records
- Only World Bestos RED BLOCK COMBINATION gives you all these important features that add up to better, safer brakes . . . at lower cost per mile!

WORLD BESTOS RED BLOCK COMBINATION

Red Block + 3 Special
"D" Blocks

The only Brake Block System with an unconditional

NO-FADE GUARANTEE



For complete information about World Bestos RED BLOCK Combination, call your World Bestos Distributor or write direct to

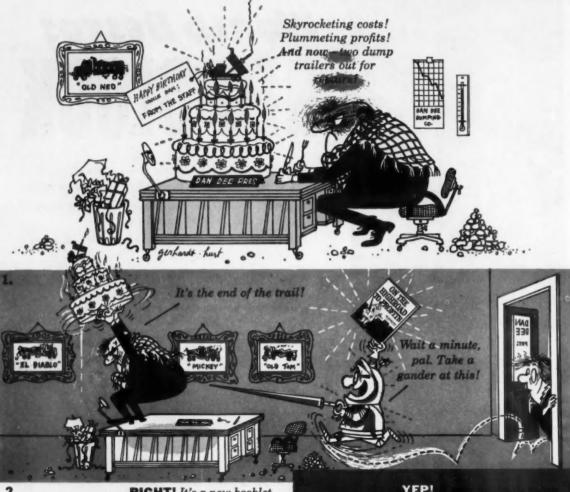
WORLD'S FINEST BRAKE LINING! WORLD BESTOS

NEW CASTLE . INDIANA

To the Rescue

with Sir Payload Pete (the modern Aluminum Knight)





H-m-m-mOn the Highroad to Profits, eh?

RIGHT! It's a new booklet from Kaiser Aluminum. Tells you how to boost payloads as much as 3000 pounds simply by switching to lightweight aluminum dump trucks!







Miss Watkins! Make a temo! I mean take a memo!

We're converting to aluminum pronto!

What this aluminum user has to say!



This trailer, made of Kaiser Aluminum, was built by the Penn Body Division, The Hockensmith Corporation, Penn, Pa.

Pays for unit, saves \$1900, in 3 years! When they switched to aluminum dump trailers for hauling their concrete aggregate, the Greensburg Concrete Block Company (Greensburg, Pa.) boosted yearly payload by 750 tons. Reports enthusiastic coowner, Al Repasky, "We figure our new aluminum unit is saving us \$25 hauling charges every week. That's enough to pay for the cost over steel—and save us \$1900 additional—in only 3 years!"



THE BRIGHT STAR OF METALS

LIGHTWEIGHT · CORROSION RESISTANT · EASY TO WORK WITH STRONG · DENT RESISTANT · NON-TOXIC · NON-SPARKING

Send now for free booklet! On the Highroad to Profits is factual and informative...shows how modern truckers are piling up payloads and savings with aluminum. Mail coupon today!



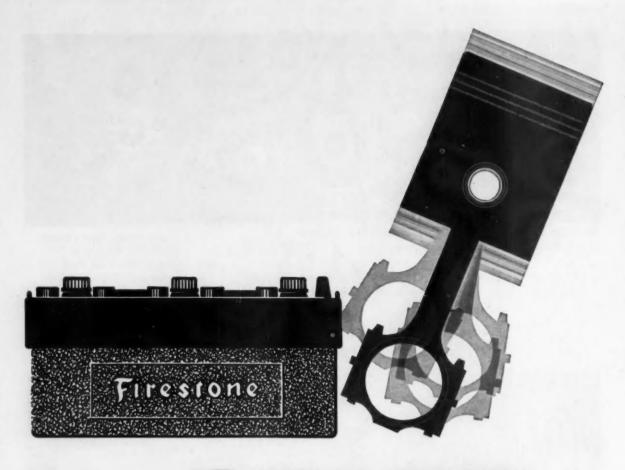
Kaiser Alaminum & Chemical Sales, Inc. Dept. 1030, 1924 Broadway Oakland 12, California.

- ☐ Please send me your free trucking booklet.
- ☐ Please have representative call.

☐ Phone

NAME____ADDRESS_

ZONE STATE



START

cutting fleet costs now with Firestone truck-bus batteries!

Built with special interlocked grid construction, patented Fiberglas separator mats and selected high-porosity rubber separators, Firestone Truck-Bus batteries last longer to cut operating costs. These six big Firestone "extras" deliver new economy to fleet owners:

- High capacity ampere ratings exceed S.A.E. and A.A.B.M. specifications
- Hard rubber case assures longer life, greater resistance to road shock, high temperature, and distortion
- Long-life heavy-duty plates assure even, efficient current distribution, resist overcharging and corrosion
- Sturdy posts make it easy to install cable terminal without danger of breaking battery
- All-rubber separators offer extra protection from vibration, high temperature and acid
- · Splash-proof caps release gas but trap and return acid spray safely to cells

From its generous reserve of electrolyte to the protective rubber bushing on terminal posts, Firestone "extras" set the pace for low cost per mile in any assembly plan. See your Firestone representative, or write The Firestone Tire & Rubber Company, Akron, Ohio.



All the Way with





BATTERIES



BRAKE LINING



SPARK PLUGS

Copyright 1959, The Firestone Tire & Rubber Company



OIL SEAL QUALITY PAYS OFF IN PAYLOADS!

Preventive maintenance cuts downtime . . . keeps payloads on the move. Good preventive maintenance demands replacing oil seals every time a hub is off! A small investment in oil seals protects costly bearings, drums, and cylinders and keeps equipment rolling.

Chicago Rawhide, with nearly a century of manufacturing experience, leads the field in supplying

O.E.M. with quality oil seals for everything on wheels ... from the smallest vehicles to the behemoths of the roadways. O.E.M. engineers demand top quality in critical parts such as oil seals ... that's why C/R has been designed into every major vehicle manufactured. Always replace with the seals manufacturers prefer. Be sure safety is sealed in ... be sure your payloads roll with the finest Oil Seals made—C/R!



For added convenience in stocking and inventorying your seals, ask your C/R supplier about this specially designed stock cabinet.



CHICAGO RAWHIDE

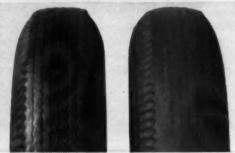
SERVICE SALES DIVISION

MORE PROOF OF



In 16 million miles of New York
City taxi driving, tires
with TYREX viscose cord had
26% less failures than nylon.

Tested on New York City taxi fleets, tires with TYREX viscose cord took the beating of big city driving 24 hours a day, 7 days a week. So did nylon—but not for long.

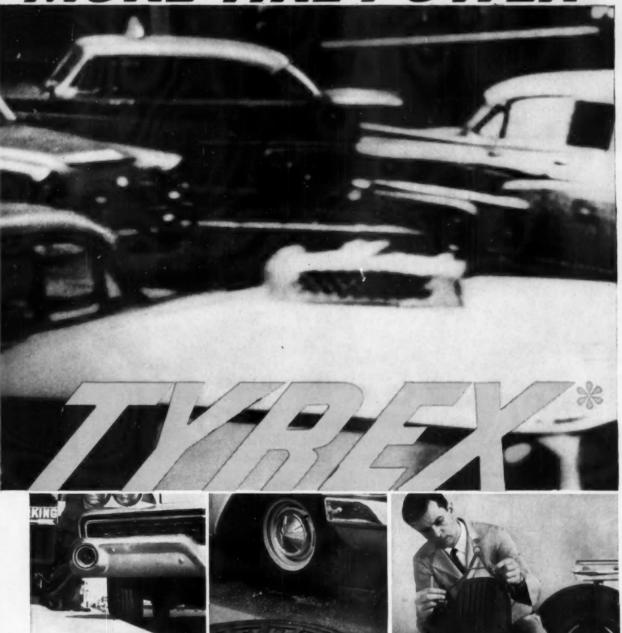


ROUGH TIME FOR TREADS

In the stop-and-go driving of New York City traffic, excessive braking nearly skinned these tires alive. So did jet take-offs and squealing turns. Still tires with TYREX viscose cord proved far more durable than those made with nylon.

TYREX INC., EMPIRE STATE BLDG., NEW YORK 1, N.Y.

MORE TIRE POWER



REPEATED IMPACTS PART OF DAILY GRIND

In this round-the-clock torture test, tires took plenty of brutal abuse from curbs, pot holes, railroad crossings, streets under repair. In other words, they got the works! But again tires with TYREX viscose cord showed greater strength with 26% less failures than nylon per million tire miles.

GROWTH GETS THE ACID TEST

Temperatures and pressures built to a peak. But tires with TYREX viscose cord proved superior here too, with substantially less growth than the nylon—and no morning thump!

IMPORTANT NOTE ABOUT TEST CONDITIONS: All tires used in this test were of identical construction and equal carcass strength—the only difference being in the tire cord used.

*TYREX is a certification mark of Tyrex Inc., for viscose tire cord and yarn. TYREX viscose tire cord and yarn is also produced and available in Canada.



NOMINAL

COST



Alex in Blunderland

It was strange. Going forward, Alex drove like a champ. But backing-up beat him. Loading docks rushed to meet his tailgate. Parking spaces seemed to shrink. It was strange. But it wasn't funny.

"Blunderland" was funny. But it wasn't strange. It was the House of Mirrors at the local fair. Seeing a reflection which made his 36-24-36 cutie look like Mrs. Five-by-Five made Alex roar with laughter. And then an idea hit him. Maybe mirrors were playing tricks on him too.

They were. But now he has that problem licked. Getting to the terminal early one day, he spent a few minutes in the yard. He knew his big problem was hitting things with the body's right rear corner. So he tried setting his right mirror at different angles. After a couple of tries, Bingo, he hit the angle that was right for him. Three tests in backing toward an empty carton were all he needed to convince him that he was right.

But now he has another problem. Miss 36-24-36 didn't like his roar of laughter when he saw her in the mirror. Know any good phone numbers?

PROOF on a dipstick

= HASTINGS

keeps oil clean

Prove it for yourself in your own trucks. Hastings does keep oil clean from filter change to filter change. Noil shows clean on the dipstick of an erigine with a Hastings Oil Filter Cartridge, right up to the recommended filter replacement time. Other dipsticks may show dirty oil . . . a sign of trouble ahead, because dirt is an abrasive—and abrasives cause wear.

The difference is Densite, an entirely different filtering material. Millions upon millions of selected, pressure-packed cotton fibres absorb dirt far beyond the capacity of ordinary filters.

Use Hastings Oil Filter Cartridges for every filter change. It pays off in longer engine life —better engine performance—fewer service requirements!



When replaced as normally recommended. Proved by tests conducted under supervision of Pittsburgh Testing Laboratories, in accordance with U. S. Ruseau of Standards procedure.







A. W. DYNALLOY Steel provides higher strength per unit of weight...lets you cut weight in fabricated products.

Specify DYNALLOY and realize these additional advantages: weldability, easy formability and resistance to corrosion and impact. In products where high strength and low weight are desirable, DYNALLOY will provide you with a means to higher quality production . . . lower costs . . . increased profits. Call your Alan Wood Representative today! He's always available and ready to help.

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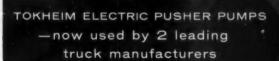
Detroit • Houston • Pittsburgh • Richmond • St. Paul • San Francisco • Seattle

Montreal, Toronto and Vancouver, Canada—A. C. Leelie & Co., Limited



STOPS VAPOR LOCK

and other serious engine troubles!



Never before has there been a fuel pump which solved so completely the fueling problems of motor vehicles. Born in the military, this Tokheim In-Tank Electric Pump stops vapor-lock absolutely, assures quick starts, ends engine starvation and valve burnout. It lengthens engine life, cuts upkeep costs, outlasts conventional fuel pumps three to one. The

secret is "pushing" instead of "pulling" the fuel from the bottom of the gas tank to the carburetor—always assuring an ample supply regardless of engine speed. This Tokheim pump is adaptable to any standard safety tank. It is modestly priced. For literature and prices, see your truck equipment distributor or write the factory directly.

General Products Division



Fort Wayne, Indiana



IN-TANK ELECTRIC FUEL PUMP



MORE PAYLOAD FROM ROCKWELL-STANDARD

Now — Rockwell-Standard adds the latest in lightweight suspension systems to the already famous "Cradle-Ride" Design. Get all these big advantages with the newest, most advanced suspension unit:

Up to 310 pounds lighter! The new all steel Rockwell-Standard Suspension provides weight savings of up to 230 pounds over competitive tandem suspension units . . . saves up to 310 pounds with aluminum frame support brackets and torque rods.

Quick, easy maintenance! Removable bolted-on torque rods plus sliding block spring attachment permit easy removal of either axle . . . completely eliminates need for lubrication. Nylon spring seat bushings require minimum maintenance, assure trouble-free operation.

Smooth "Cradle Ride" Design. The famous Rockwell-Standard design that has carried and cushioned tandem loads for years. The load is more stable . . . driving is easier and safer.

NEW Lightweight Pusher Tandem!

Combines the new lightweight suspension with a Rockwell-Standard drop center axle and single-driving axle to give a pusher tandem unit unmatched in weight savings and balanced construction.

Another Product of...

ROCKWELL-STANDARD

CORPORATION

Transmission and Axle Division, Detroit 32; Michigan



IN THE MINDS OF ENGINE MAKERS...



FRAM RANKS FIRST!

Over 400 Manufacturers install FRAM Filters as original equipment—more than any other filter! They continually rely on FRAM for outstanding leadership in filter development...for highest quality filter construction...and for a fully-backed guarantee on complete engine protection!



Anyway you look at it...FRAM ranks first!

- More drivers prefer FRAM than any other brand!
- More car makers install FRAM as original equipment!
- More than 400 engine manufacturers specify FRAM —more than any other filter!

FRAM CORPORATION, Providence 16, R.I.



1959 New Truck Registrations

STATE		Breck- way	Chev- rolet	Dia- mond T	Dodga	Ford	G.M.C.	interna- tional	Mack	Stude- baker	White	Joop Joop	Willys Truck	Others	Total
Mabama	May 5 Mes.	********	626	8	84 332	445 2.015	129	127	22 155	3	23	2	11	48	1.4
Masks	5 Mes. May 5 Mes.	1	2,847	28	332	2,015	129 865 24	647 14	155	23 2	107	25	42	272	1
Arizona	5 Mes.	*******	94 413		26 68	95 233	76	44 54	1	12	12	11	13 22	43 34	4
lekanna	May 5 Mes.	********	1,957	1	343 44 297	1,241	401	299	14	32	40	53 7	97	164 14	4.6
TKERNED	May 5 Mos.	********	3.014	10	297	2,019	73 509	133 519	20 19	3 28 49	32 80	24 73	26	68	1,2 6,5
California	May 5 Mos.		3,947 18,712	58	454 2,158	3,017	513 2,340	2,295	19 78	243	309	328	100 436	2,743	9,4
Colorado	May 5 Mos.		2,361	2	83 473	433 1,753	92	133 489	7	28 70	16	78 205	56 270	26 147	6,3
Connecticut	May 5 Mes.	2	158	3	31	168	560 87	86	50 22	5	26 25	13 87	20	59	- 6
Delaware	5 Mes.	12	748 81	14	208	642 35	228 36	386 27	77 32	16	93	4 1	101	228 11	1,1
District of Columbia	May 5 Mes. May	7	333	20	88	182	111	186	165	5	27	10	15	49 23	1,1
District of Continue	5 Mas.	********	318	1 2	60	344	92	62	22	********	13	4	11	107	1,0
Horida	May 5 Mes.		3,906	16	97 591	3,717	205 1,045 298	209 1,111	42 258 29	15 67	342	135	320	1,132	12,8
3eorgia	May 5 Mes.	*******	1,021 3,064	15	113	2,437	298 751	280 679	29 176	12 42	137	13 35	13	114 359	8,1
daho	May 5 Mos.	********	284 1,045		402 54	210	80	124	6	8	6	6	43 27 119	16 81	3,1
Ilinois	May	********	1,194	23	226 147	1,033	304 228	399 584	14 59	43 19	16 53	34 15	49	173	3,5
ndiana	5 Mes.	*******	5,596	106	922 140	4,806 775	1,194 202	2,480 421	59 258 108	101	356 72	122 12	262 29	782 130	16,9
lows	May 5 Mos.	*******	3,210	48	806	2,815	762	1,436	240	239	237	41	122	316 41	10,0
V	May 5 Mes.		2,891	69	78 424	2,556	93 476	1,210	67	74	68	31	97	218	8,1
Kansas	May 5 Mos.	********	3,070	21	52 404	488 2,456	121 558	182 703	3 30 7	54	50	19	68	23 111	1,5 7,5 1,5
Kantucky	May 5 Mos.	*******	615 2,353	1 3	57 223	479 1,726	168 597	163 574	7 83	28	21 64 10	49	16 61	35 154	5.8
Louisiana	May 5 Mos.	********	730	2	41	525	113	199	22	. 8	10	4 1	14	46 273	1.7
Maine	5 Mos. May 5 Mos.	1	3,589	11	329 27	2,685 132	633 50	728 113	88 10	37	52	39 19	55 22	47	8,5
Maryland	5 Mos.	10	573 358	12	96 72	548 305	151 78	325 248	27 20	14	20 31	78	131 22	127 45	2,1
	May 5 Mos.	26	1,427	6	328	1,248	398	711	114	11	103	48	85	242	4,7
Maesachusetts	May 5 Mos.	3 17	222 885	4	381	1,041	35 328	131 436	27 81	15	31 109	34	27 161	79 311	3.7
Michigan	May 5 Mos.	*******	885 1,299 4,757	13	310	1,228 4,622	298 1,283	251 963	51 208	15	76 236	34 38 164	83 330	137 611	3,7
Minnesota	May	********	709	6	1,096	759	135	298 864		67 24 74	8	3	15	58 269	2,1
Mississippi	5 Mos. May 5 Mos.		2,812 503	13	497 30	2,778	480 110	111	81	74 B	44	23	82 3 17	30	1,1
Missauel	5 Mos. May	********	2,280 1,004 4,904	5 3	280 82	1,608	542 259	569 302	43 16	38 17	11 22	42 10	17 28	131 53	5,5
	5 Mes.	********	4,904	30	519	3,413	1,193	1.382	93	68	101	44 18	34	286	12,1
Wentana	May 5 Mos.	*********	1.099	********	293	1,012	260	110 452	15 24	14 52	10 28	59 1	38 209 7	36 107	3,6
Nebraska	May 5 Mes.		1,099 385 2,267	7 48	290	364 1,842	85 481	145 704	15	8 30	13 92	40	86	27 206	6,6
Novada,	May	*******	48		8	58 266	16	12	-/1	6	********		6	19	1,0
New Hampshire	S Mos.		342 120	1	62 52	103	97	91 43	1 11	16	3	26 10	21 38	164 32	4
New Jersey	5 Mes.	30	391	19	144	317 488	87 211	180 259	67 69	12	3 8 57	34 21	117 47	116 121	1,4
New Maxico	May 5 Mes.	122	2,484	59	557	2,422	782	1,087	343	25	248	104	223	594 14	9,0
reaw tyrexico	May 5 Mos.	********	1.657	2 7	246	252 940	346	218	3 20	37	8 24	35	14 85	75	3.6
New York	May 5 Mes.	37 154	1,073 4,520	7 28	1,183	1,011 4,163	306 1,270	656 2,787	96 430	19 53	160 731	56 264 22	101 615	1,572	17.
North Carolina	May 5 Mes.		636	*********	84	804	153	185	83	10	96	22	18	57	1.1
North Dakota	May 5 Mes.	********	3,472	17	484	3,098	878 32	830 106	318	74	255	82	85	317	1
Ohio	May	3	1.054	7 7	187 224	781 992	171 267	364 480	56	18	114	12	29 71	28 174	2,
Oklahama	May 5 Mos. May	3 0	1,054 4,584 1,255	57	1,153	4,630	1,157	1,886	327	122	618	24 154	360	827 20	15,1
0	5 Mes.	********	3.961	6	93 344	872 2,848	155 562	751	23 70	36	16	24	31	96 55	8,
Uregon	May 5 Mos.		1,985	27	47 373	346 1,628	105 404	143 506	28 94	19	85 185	*******	67 284	55 413	5,
Pennsylvania	May 5 Mes.	22 83	1,088	7 64	251 1,165	949 3,834	262 1,037	613	164	34 116	114 576	44 283	129 651	188 707	3. 15.
Rhode toland	. May		60	*******	12	72	17	2,218	728 4	2	7	2	2	51	
South Carolina	5 Mes. May		300 381	1 2	216 126	322 286	56 47	176 72	33 14	5 7	22 10	8 7	16	136 36	1.
South Daketa	5 Mes.		1,728	7 3	322	1,280	282	332 101	78	23	48	24	36	173	4,
	5 Mes.		1,021	6	200	880	240	510	1	37	20	29	58	84 34	3.
Tennessee	May 5 Mes.		3,111	3 14	56 566 211	393 2,284	152 776	154 750	38 282	34	69 77	6 42	8 42	210	1,
Texas	May 5 Mes.		2,460	5 25	1,410	1,682 9,491	340 2,035	537 2,610	33 249	34 18 175	77	28 139	30 180	80 405	31,
Utah	. (May	*******	194	4	70	157	54	79	6	. 7	396	5	7	29	
Verment	5 Mos. May 5 Mos.	2	981 95	********	266 18	748 106	270 44	268 51	18	28 2	36	19	68 22	100 24	2,
Virginia	5 Mos.	7	311 627	2 2	73	301 527	105 137	150 217	8 40	8 24	3 9 17	51 17	97 26	87 68	1,
The second second	5 Mos.	1	2,460	7	94 859	2,102	512	723	144	92	63	69	146	289	7,
Washington	May 5 Mos.	********	2,113	1 7	84 419	1,868	653	179 663	59	10 46	10 35	10	28 164	110 460	6,
West Virginia	May 8 Mos.		220 987	13	49 247	183 813	80 432	59 242	7	7	8	36 18 91	41 184	27 91	3.
Wiscensin	. May		573	3	59	451	103	275	47 11	34 14	8 54 21 72	12	36	60	1
Wyoming	5 Mos.	********	2,233	17	364 25	1,916	40	1,175	78	60	4	88	158	296 14	6
	5 Mos.	*******	741	4	148	608	188	196	19	14	9	27	129	50	2,
Total	Aay, 1958	106	30,906	206 245	4,406 3,271	25,379	6,479	9,940	1,249	555	1,488	708	1,473	3,676	86
	Aay, 1966	70	23,183	1,039	3,271	17,413	4,733	7,533	1,125	424	1,131	459	987	2,664	63
Total 5 Mon Total 5 Mon		452	136,773		22,541	111,038								16,797	382

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and in trucks...

Oil Control!

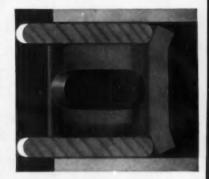
Sealed Power KromeX piston ring sets with stainless steel oil rings control oil!

New design...new material...fully tested! These rings come in fast, control oil even under high vacuum conditions or in tapered and out-of-round bores.

JUST ONE OF THE REASONS WHY

Oil passing around the back of the ring under high vacuum or deceleration is one of the main causes of smoking. Sealed Power stainless steel oil rings stop oil going around the back of the ring because of their side-sealing design.

The angle of the shoulders on which the rails depend for outward radial pressure produces the side pressure which holds the rails snugly against the side of the groove. Result: no passage of oil around the ring—no smoking.



SEALED POWER CORPORATION . MUSKEGON, MICHIGAN

Sealed Power KromeX Ring Sets

BEST FOR RE-RING!

BEST FOR RE-BORE!



SS-50U

STAINLESS STEEL

OIL RING

U.S. Pat. No.

2 789 872

Insist on the best...why settle for less





"No time for a second coffee," says Editor Bart Rawson, "The office has arrived." (Mobile Office cuts time lost in getting to work to nothing.)

Receptionist reports over intercom to President Kal Kaputi, "The whole cotton pickin' office is out here in the lobby!" Team for this visit included Editor Rawson (in driver's seat), Feature Editor Jack Colgan (smiling) and Technical Editor Ed Shea (in doorway). Not shown is Hamp Law, the cartoonist

CCJ's Mobile Editorial Team Reports . . .

Alles Ist Nicht Kaput

"Photos" and inspiration courtesy of Hamp Law

Panic stop by first leg driver Shea resulted in a moment of chaos. Bart lost his typewriter control for a moment, Celgan began again on the coffee





A famous fleet discloses the

secrets of its operation to help you attain similar efficiency in your fleet shop, maintenance procedures and driver training

WHEN THE OFFICE comes to your door, there's scarcely time for a second cup of coffee . . . as Editor Bart Rawson discovered when the Mobile Editorial Team recently took off for its biggest conquest to date—a visit to the famous Kaputi Lines, Inc.

Only one incident marked the outbound trip. Bart was typing the agenda. Feature Editor Jack Colgan had "replacement" coffee brewing. Technical Editor Ed Shea was behind the wheel, had to make a sudden, "stand-on-the-pedal" stop. A brief bit of chaos

at Kaputi Lines

Kaputi's shop crew showed flattering interest in Mebile Office, Rawson thought, until he discovered all wanted to have their picture taken



resulted within the normally tranquil confines of the mobile office, but it was soon corrected.

Bright and early next morning, we wheeled into Kaputi's front office. The pretty blonde receptionist, though somewhat nonplussed, was cordial and enthusiatic in her reception.

with President Kal Kaputi and his top management team. We learned of the fantastic growth of the company from the early days of the Model T to the mighty Behemoths of today. Frankly though, it was

an oft repeated story. We were anxious to hurry on to our major goal—the smooth-working, magnificent ahop that we had heard so much about.

The reception was hardly expected. True enough, Ed was already on the top deck with his trusty Graphic. But we hardly expected the reception. Everybody all of a sudden wanted to be sure they would be in the act... and in the pictures.

It took only a few minutes to explain the agenda we had so carefully prepared and to line-up a system of priorities. Then began the methodical tour of the shop from department to department.

First stop was the parts room.

Almost at once we were impressed with the key theme that runs throughout the entire shop organization—mobility of equipment and efficiency of procedure. The parts department is huge, runs completely around shop close to the unusually high ceiling.

With the emphasis on speed, it was obvious that there would not be time for climbing a ladder. So it was only natural to find that the No. 1 clerk was an expert pole vaulter. By the stop watch, it took four seconds to produce a specifically numbered fan belt from the ceiling rack.

Close by is the well-equipped radiator repair shop. Here too, we found an example of Kaputi efficiency . . . the close tie-in between preventive maintenance and its driver-training program. As we walked in, a

A LOOK AT THE SHOP

... at Kaputi Lines

Continued from page 89

radiator was being removed from the cleaning tank, the tail of a large crayfish protruding from the cap opening. Result:—An immediate notice on the drivers' bulletin board that no more unstrained swamp water would be added enroute.

An adjacent area of the shop makes

careful checks on thermostats. We found the section well-equipped with a thermostatically-controlled hotplate for testing. And once more a major technique was unveiled. Thanks to the smooth functioning of this department, coffee breaks have all but been eliminated.

At the major overhaul section, we found precision mechanics at work. The Mobile Team has traveled far and wide, but seldom, if ever, have we found such a high degree of living within close tolerances.

Just two examples will illustrate the point. Only Oswald, the Chief Mechanic, is entrusted with the precision job of restoring tolerances to workable limits. There is an iron-clad rule that no bearing will be replaced unless it is within 0.5 in. plus or minus factory standards.

When it comes to buttoning-up cylinder head bolts, factory standards are closely followed. Of course, high quality torque wrenches are used for all such opera-



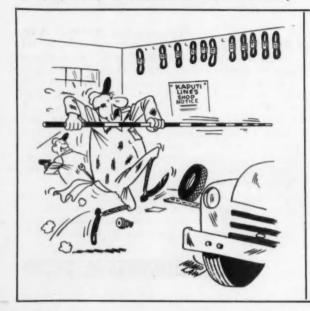
Radiator check discloses need for driver training. Immediate notice went on bulletin board saying all swamp water should be strained before being added to coolant

tions. But an intriguing development is the shop-built extension for the torque-wrench handle illustrated.

In the tune-up section, we encountered one of the newer mechanics and the fine example of on-the-job mechanic training in progress. The mechanic, with distributor and ignition harness in hand, was getting

No storage space is wasted on parts. They are carefully hung high on shop walls. This system also develops an agility among the mechanics that other fleets envy

Cooling system components get thorough going over. Hot plate and old coffee pot combination for testing thermestats was shop-developed, has discouraged coffee breaks





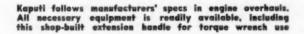


Special tool board and a careful attention to work give engine overhauls at Kaputi a rebuild precision seldom—if ever—matched by other fleet maintenance programs

first-hand knowledge of why a battery should be included in final reassembly.

In the very next stall, "Sparks" Worthington had

THERE'S MORE

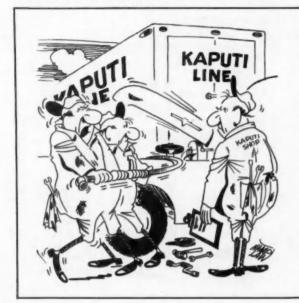






Electrical specialists have little trouble since foreman is always ready to explain that the reason for the "lack of fire" is that battery is still on charge beach

Experience has proven to Kaputi that careful engine tuneup gives many maintenance-free miles of service. Timing is important. Shop uses the new "Lawrence Welk" method





... at Kaputi Lines

Continued from page 91



Kaputi cuts maintenance costs through use of simple components plus a careful driver training program. Here, mechanic gives driver instruction in operation of starter

two tune-up specialists in tov. "Timing" he said, "is one of the most important items involved with trouble-free operation on the road. We've tried many gimmicks and many methods, but it's hard to beat the Lawrence Welk routine."

We've already mentioned the superb driver-training program used at Kaputi. But there remain two more examples. Just outside the dispatcher's office we found the shop foreman briefing a long-haul driver on the basic mechanical details of his vehicle. At the exact moment we captured for posterity, the driver was being instructed on the use of the starter.

Inside the dispatcher's office.

we found a remarkable combination of the use of twoway radio and mechanical knowledge. Break-down time has been cut almost in half ever since a set routine was established for furnishing step-by-step technique on the fastest way to hitch a ride back to the terminal.

We hated to leave. But all of our on-the-spot reports must come to a reluctant end. Of course it was unthinkable to sally forth without a final check in the combined lubrication and safety check bay. It took the carefully-trained chief inspector only seconds to spot the need for a new typewriter ribbon and carefully sharpened pencils.

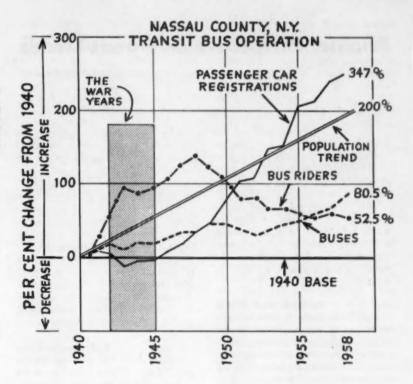
Time consumed in answering road calls has been cut to a minimum with use of two-way radio. Drivers now get expert advice quickly . . . on how to hitch a ride back home

Safety checks and lube work are combined. Sharp-eyed inspector here gives orders to change typewriter ribbon and sharpen pencils before Mobile Office hits the road



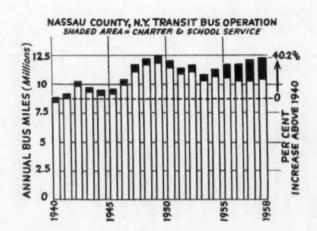


Here's the basic transit picture on which this timely report is based. Although it's from Nassau County in suburban New York City, it probably isn't too different from the pattern you'd get in plotting data gathered in your own fleet's operating area



Here's a Brighter Perspective on Transit Bus Trends

Try this approach to transit trends in your area. The results may surprise you says E. N. "Bing" Hatch, Director of Franchises, Nassau County, N. Y.



ARE TRANSIT BUS operators doomed? Trends since the end of World War II might make us think so. But if we compare current data with pre-war figures we may get a better perspective.

Using Nassau County, N. Y., bus data, I was able to make such a comparison. Some of the conclusions which can be drawn from it may surprise you.

Three major facts stand out: (TURN TO NEXT PAGE, PLEASE)

Important factor here is that while annual bus miles were up 40.2 per cent in 1958 over 1940, almost half the increase came from charter and school transport

Brighter Perspective on Transit Trends

Continued from Page 93

First, without the

growth in school bus and charter business, bus operators would have been unable to withstand the combination of higher costs and lower passenger volume.

This is confirmed by the operations of the five bus companies which have gone out of business in the County since 1950. All of them depended on small franchised routes without school or charter work.

Second, high driver

wages have made it increasingly important to use larger buses and adjust schedules to produce maximum revenue for each driver-mile. This fact has been recognized by bus operators in the County.

In the last five years, 85 per cent of new coaches purchased were large diesel models. Of the 326 buses in service in 1958, 239 had 36 or more seats.

The new larger buses require less maintenance, lowering the average maintenance cost per bus. However, purchase price of the new units has gone up. This is shown in the higher depreciation figures, which rose from 1.27 cents a mile in 1940 to 4.71 cents in 1958.

Third, a nearly constant ratio of passengers to bus miles (2.37 in 1940, 2.90 in 1958) shows that there is a continuing demand for service even though it may not be as high as transit operators would like.

Before these conclusions can really mean anything, you need facts about the type of bus operations which produced them.

There were 18 bus companies franchised to operate in Nassau County in 1958. They serve an area of about 300 sq mi on Long Island, just east of New York City. Largely suburban, the county has two relatively small cities, three towns and 63 incorporated villages.

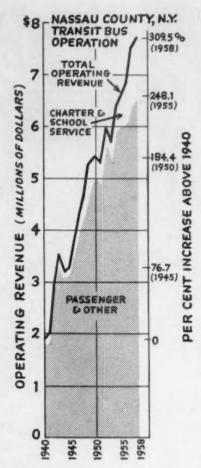
Rapid population

growth (about 200 per cent in the past 20 years) has tended to make it look increasingly like a metropolitan area. At the start of 1959 the population was estimated at about 1.2 million.

The companies operated 326 buses on 48 routes in 1958. The routes have been laid out as feeder lines to local stations of the Long Island Railroad, which in turn is the rapid transit system to Manhattan and Brooklyn.

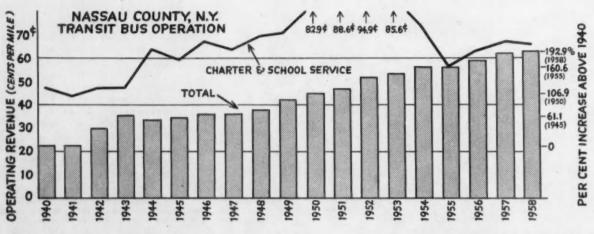
Express buses also

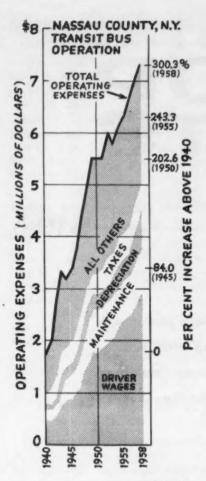
provide mass transportation between a number of villages and cities in the county and to Flushing, Jamaica and Far Rockaway. The routes average 9.23 miles, with



REVENUES . . .

Charts above and below on this page show operating revenue picture from 1940 through 1958. They're drawn to same scale as expense charts on facing page to make comparisons easy. Operating revenue has stayed ahead of operating expenses in recent years, but note that this would not be the case except for the income from charter and school operations





EXPENSES . . .

Operating expenses show the same steady climb as operating revenues. As you might expect, driver wages show the largest boost. Depreciation, too, is taking a larger bite. Repair and tax costs show little change in recent years. Maintenance men can take a bow for the former. On the tax side, the answer here resulted from the County's basic transit tax policy

zoned fares averaging 3.62 cents per mile. The average fare in 1958 was 21.4 cents. This is an increase of 148.8 per cent over 1940, and continued fare increases seem likely.

With this background, let's have a look at some of the revenue and expense figures that support the conclusions drawn in the earlier part of this article. Charts on these pages show the changes for the years 1940 through 1958.

In summary, here's how the revenue side stood at the close of 1958 as compared to 1940:

• Total operating revenue up 309.5 per cent.

• Bus mileage up 40.2 per cent.

• Cents - per - mile revenue up 192.1 per cent.

 Revenue from regular passenger route service up 277.5 per cent.

• Revenue from charter and school service up 702.9 per cent.

• Number of passengers up 52.5 per cent.

• Number of passengers per mile up 22.4 per cent.

 Number of buses in service up 80.5 per cent.

Expense trends

require a little more analysis to put a finger on the brighter spots. They're up. There's no doubt about that. But since 1953 (which showed a \$170,527 loss), they've been less than operating revenues. Charts on these pages are drawn to the same scale to make revenue to expense comparison easy.

Another way to look at it, is to consider the annual cost split among these expense items. Driver wages

have accounted for a steadily increasing share of operating costs. They accounted for 25.5 per cent in 1940, 27.66 per cent in 1945, 33.39 per cent in 1950 and 39.21 per cent in 1958.

Equipment repairs jumped from 8.75 per cent of operating costs in 1940 to 14.07 per cent in 1945. Since then, however, they have accounted for a gradually decreasing share. During the war period, of course, shortage of replacement equipment was the major factor in the increase in repair costs.

Repairs accounted

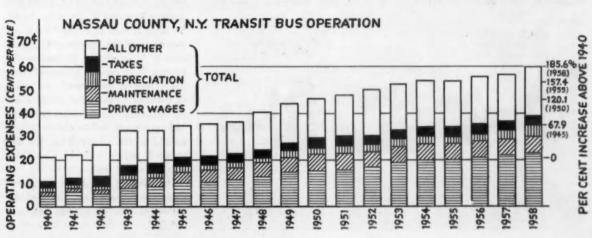
for 14.05 per cent of per-mile operating costs in 1950, dropped to 11.77 per cent in 1952. They went up to 12.67 per cent in 1954, dropped to 12.39 per cent in 1956, and dropped again to 11.89 per cent in 1958.

Depreciation has also held fairly constant as a cost factor. It accounted for 6.07 per cent of operating costs per mile in 1940, went up to 6.43 per cent in 1945, dropped to 6.06 per cent in 1950. It stayed around 6.00 per cent from 1950 up to 1958, when it went up to 7.88 per cent.

Taxes have

taken a steadily-shrinking share of operating costs. Accounting for 13.49 per cent in 1940, they took 11.11 per cent in 1945, dropped to 8.26 per cent in 1950. By 1958, taxes accounted for only 6.31 per cent of operating costs per mile. Here's at least one reason for this....

Data for this study was available (TURN TO PAGE 126, PLEASE)





SHOP

\$10->



Send us a short description and photograph or simple sketch of the shop-made maintenance short cuts you are using. We'll pay \$10 and \$25 to those who submit good ideas

Shop-Built Puller Keeps Brake Cam Bushing in Correct Alignment

By Leland Hunt, Director of Maintenance, Automobile Transport Inc., Lorain, Ohio

This handy puller saves time and conserves parts when installing new cam shaft bushings in brake spider assemblies. It gives a steady,

straight pull. There's no danger of cocking the bushing.

The puller is made from a 1/8 in. diameter bolt. The outer sleeve is a

BUDD WHEEL NUT
WITH FLOATING
COLLAR

INNER
SLEEVE
PULLER
BOLT
3 IN. LONG
BEARING

section of pipe with an outside diameter large enough to fit the outer shoulder of the spider. The inner sleeve is machined to fit inside the bushing to guide it. Shoulder should be large enough to contact the leading edge of the bushing. This permits it to push the bushing while holding it in correct alignment with the spider housing bore. The piece to the right of the outer sleeve is an old throwout bearing from a GMC 350 engine with a 7 in. clutch. A nut welded to this is for pull up. On the opposite end is a Budd wheel nut with a floating collar.

The rotating feature of this puller gives correct alignment as the old bushing is removed and the new one installed.

Magnets Hold Fender Cover in Place

By Harry Mohia, Public Works Dept., Wakefield, Mass.

Have trouble keeping small drop cloths on the fender? The smaller they are, the more likely they are to slip off.

We use small fender covers when making headlight adjustments. To make sure they stay put, we sew a small magnet in each corner. Besides protecting the fender from scratches, the "magnetized" covers save time and don't get dirty half as fast since they aren't forever falling on the shop floor.

Puller Removes Frozen Shackle Pins

By J. B. Collyar, Maint. Supt., City of Stillwater, Okla.

This is a special puller we made for removing a frazen spring shackle pin which we couldn't drive out from the inside of the frame.

Take two pieces of $1\frac{1}{4}$ in. pipe and weld a 5/16 in. steel plate to the ends. Drill a hole in the center for a 7/16 in. steel bolt $3\frac{1}{2}$ in. long. On one end, cut $\frac{1}{8}$ in. pipe threads to screw into the Zerk hole on the end of the frozen pin. Thread the other end of the bolt for the puller nut and flat washer. Tightening down on the nut easily pulls out the frozen pin.

Tire Dolly Handles Large Tires

By Charles H. Willey, Route #7, Penacook, N. H.

This tire dolly ends heavy lifting when placing heavy truck tires on the wheel. Make it out of scrap metal. Size depends on diameter and weight of tires your fleet has. A long bolt with a pipe spacer over it holds the dolly at the desired width. By moving the spacer forward or back into various holes, you can use the dolly on several size tires. Discarded jack wheels can be used on the front.

By lifting the dolly handle, tire is eased in place. There's no heavy lifting or improvising with pinch bars, pipes or tire irons.

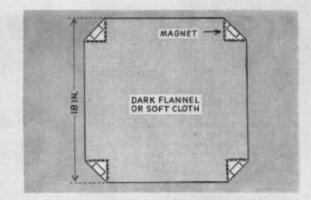
Cleaning Solvent Tank Cuts Costs

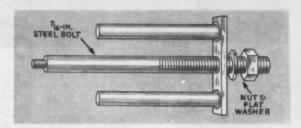
From the maintenance shop, City Garage, Orlando, Fla.

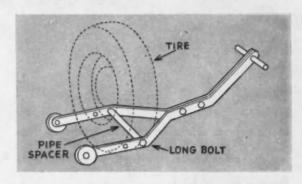
By pre-mixing cleaning solvent in a 55-gal drum, costs have been cut 50 per cent. Mechanics draw off just what they need.

Drum is mounted on concrete blocks with a spigot at the bottom. One drum end was cut off to make a lid and mixer. A piece of 1/2 in. pipe extends through the lid to the bottom of the drum. To it are welded four 6 in. pieces of pipe. Tacked to these are pieces of light sheetmetal. A few turns of the handle before drawing from the spigot agitates the solution in case the solvent has settled out.

Mixture used is one part solvent to 10 parts kerosene. Using the pre-mixed batch system, price has been cut to about 35¢ a gallon.

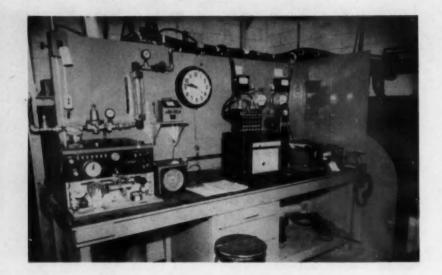








Test control equipment includes —reading from left to right on bench—a weight gain printer, timer, temperature read-out system for both inside and outside the trailer, a calorimeter. On wall at left is air leakage instrumentation. Meters on wall at right measure current used for subsequent conversion into Btu



Reefer Rating Lab Is Ready

Here's how Budd in Philadelphia is setup to check-out trailers under Truck-Trailer Manufacturers Assn.'s program

TRUCK OPERATORS will shortly be able to buy new refrigerated trailers carrying an official certificate of their exact cooling load rated in terms of Btu per hour. For the first time they can be assured of the true "performance" of the trailers.

Climax to the years of steady progress came only the middle of last month when Budd Co. in Philadelphia announced completion of the first official test. COMMERCIAL CAR JOURNAL was on hand to take the accompanying photographs, showing details of the elaborate test set-up.

The story began about five years ago when a group of responsible carriers challenged the trailer builders to develop a reliable means for rating their products. The Truck-Trailer Manufacturers Assn. accepted the challenge, completed its research last winter (Feb., page 86).

It took the help of the U. S. Dept. of Commerce, the National Bureau of Standards and more than \$65,000 of financial aid to do the job. But the theory and testing techniques (for details, see Jan. '58, page 80) were complete. There remained only the commercial implimentation.

That's where Budd came into the act. It had the perfect "locale"—a 106-ft long climate room originally designed for railroad passenger cars, and capable of holding temperatures from plus 110 to minus 30 deg F. It also had the "know-how" of qualified test personnel.

Under the new rating procedure, the room is maintained at an exact 100 deg F temperature and 50 per cent relative humidity. The trailer is cooled by a brine coil placed inside it, and temperature inside the trailer is maintained at exactly 0 deg F. In simplest terms, the amount of cooling required to maintain this temperature is the cooling load of the trailer . . . measured in Btu per hour.

Two different systems are used simultaneously. One—known as the Flow Method—measures the amount of brine (controlled to exact temperature) needed to do the job.

The other system—known as the Comparison Test—measures the unknown heat gain inside the trailer with a known heat gain in a calorimeter. Heat gain in the trailer is caused by heat leaking through the walls. Heat gain in the calorimeter is produced by an electric heater. The amount of current consumed by this heater can be converted easily to Btu per hour.



TTMA's reefer rating subcommittee inspects the Budd facliity. From left: H. J. Bornemann of Clark Equipment Co., L. J. Willis of Therme-King Corp., Paul Jung of Trailmobile, John Hulse of TTMA and George Chieger of Fruehauf



Temperature in lab is kept at 100 deg F. Brine piped into trailer keeps inside temperature at zero. Rating is based on Btu loss while maintaining this difference. Load cell at corner (one of three) weighs moisture gain

to Go

Both systems must agree within five per cent accuracy.

Auxiliary equipment, using electronic load cells, measures and automatically prints the exact weight gain of the trailer at 30-min intervals throughout the test. Thus the weight gain from moisture is also accurately measured and is part of the official rating.

To do the job right requires a

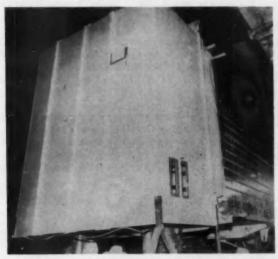
considerable amount of special equipment beyond the basic climate room. A large capacity compressor outside the room cools the brine. There's a circulating fan inside the trailer. There are thermocouples to measure exact temperatures "all over the place" inside and outside the trailer. Then there are the load cells for weighing, two at the rear and one under the king-pin.

It is also necessary to simulate wind pressure at a speed of about 50 mph. This is accomplished with a "wind box" clamped and sealed to the front of the trailer. This box is equipped with blowers which produce two inches of water gage pressure.

Finally some highly specialized recording instruments (shown in an accompanying photo) are needed to complete the test equipment.

As a result, manufacturers can build a better trailer . . . and truck operators can be assured of performance. Both have a new and very real tool in selling refrigerated transportation.

The present plan is to encourage manufacturers to submit production samples of cur-



To check air leakage front end of trailer is sealed in this wind box. Two fans inside push air against trailer's nose to approximate effect of a 50 mph road speed

rent models for testing. Once certified, with an official seal developed by the Truck-Trailer Manufacturers Assn., the trailer manufacturer may then certify all production models. . . .

- If they are built to the same specifications as the trailer tested.
- If the rate of air leakage in subsequently built trailers is not materially greater than in the tested trailer.

One more step remains. That is the development of similar performance standards, also in Btu per hour, from the makers of refrigerating units. Target data for this project is about six months from now.

Hold Down Fleet Costs with

Here's how the Willett fleet in Chicago does it. You'll probably find you

HOW DO YOU know if your maintenance costs are out of line? Willett Co., a Chicago contract carrier plus rental and leasing operation, answer this one by . . .

• Establishing maintenance standards.

Periodically checking each vehicle's performance against the standards.

Chances are you'll find it easier to use Willett's system than Willett itself does. Reason is that Willett operates a mixed fleet of some 1600 vehicles . . . ranging from ½-ton pick-ups, station wagons and school buses on up to heavy-duty tractors. You probably won't have to work-out standards for as many groups of vehicles as Willett had to. Here's how to go about it:

First step is to collect your past

fleet records—shop work tickets, parts requisitions, fuel slips and mileage reports. Willett went back five years in setting up its system. But according to Budget Director Cary Wang, who supervised the job,

data covering a year or two, if complete, should be adequate.

If you go back too far, your cost data will tend to be low because of increasing prices in recent years. If you don't go back far enough, the resulting "standards" may not be typical.

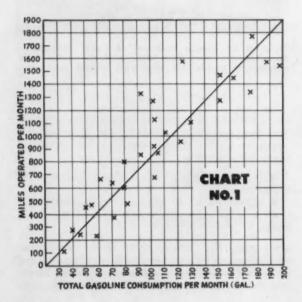
Next step is to group your data-

by vehicle size, by monthly mileage, by age. Because of the diversity of its fleet and its operations, Willett ended up with 1350 groups. You'll probably be able to get by with considerably less.

For example, a bakery fleet with all one make and size of vehicle may find they're all running about the same miles per month. Only groups they'd have to make would be by vehicle age.

A common carrier fleet might split its vehicles this way—(1) PU&D freight trucks, (2) PU&D tractors, (3) over-the-road tractors and (4) semi-trailers.

Number of groups depends on how refined you



How Do You Find

Your "Standards"....

Here's how Willett built a "scattergram" for its 1/2-ton panel trucks. Vertical scale at left (see Chart No. 1) shows monthly mileage per vehicle. Horizontal scale at bottom shows monthly total gasoline consumption per vehicle. From its records, Willett then plotted actual vehicle performance on the chart. For example, the first "x" at lower left indicates a vehicle going 100-120 miles a month using 32-34 gal of gasoline. Next "x" to the right is a vehicle with 260-280 monthly mileage consuming about 40 gal of gasoline. Process is repeated for each vehicle in the fleet.

Next step is to draw a line dividing the "x's" evenly

"Standards"

can do it easier than it can

want your "standards" to be. The more groups you have, the more useful the standards are in spotting out-of-line costs...either for an individual vehicle or between different makes and models doing the same work. Don't have groups with so small a number of vehicles as to make the resulting standard insignificant.

Third step is to determine what standards you want to set. Willett decided on three for each group comparing . . .

1. Fuel consumption in gallons per month vs. miles operated per month.

2. Shop labor hours per month vs. miles operated per month.

3. Parts cost per month vs. miles operated per month.

Next step is to plot the individual vehicle performance data on a "scattergram" for each group for each of the standards. Details on how this is done are

above and below it (diagonal line on the chart.) This is the "standard" line. Vehicles below the line are doing better than average. Vehicles above it are on the high side. You could stop here. "Reading" the line would give you a "standard." For example, the 1000-mile per month line intersects the "standard" line at 112-114 gal of gasoline per month. So, it could be said that any 1000-mile per month vehicle using less gasoline than this, is doing OK. If it's using more fuel than this, it needs attention to find out why.

But Willett goes a step further. It groups its 1/2-ton panel trucks by mileage classes (as indicated on Chart No. 2 by the six mileage groups). It then marks a heavy dot on the "standard" line at the mileage mid-point (vertical scale) for the group. Then Willett says, for example, 1/2-ton panel trucks in the 1400-1800 monthly mileage group should use 170-172 gal of gasoline per month. When this "standard" isn't met, the trouble-shooting starts . . . as described in this article.

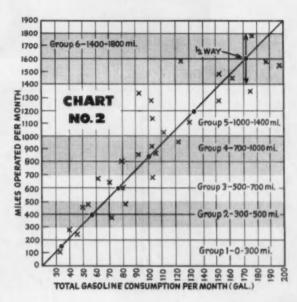
What Do You Get from "Standards"?

As used by Willett, maintenance standards sound like the answer to a fleet operator's prayer. They

- Help control fleet costs.
- Detect "out of line" costs quicker.
- Make it easier to find the reason for abnormal costs.
- Take much guesswork out of fleet decisions—from the shop on up to top management.
- Keep personnel cost conscious.
- Help determine optimum fleet size.
- Provide a base in aiming for more efficient fleet operation.
- Control parts inventory level.
- Keep the shop labor force at a size consistent with the work to be done.
- Aid in future fleet planning.
- Help evaluate vehicles, equipment and shop procedures.
- Provide a basis for a shop management bonus program.

shown in the illustrations below. Basically, all you do is (1) spot the individual vehicle data on a chart, (2) draw a line that divides the "spots" evenly, (3) then read the line for your standard.

Once the standards are established, it's an easy (TURN TO PAGE 128, PLEASE)





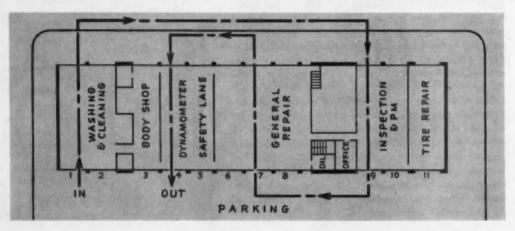
Referring to the floor plan below, pictures will give you a quick trip through the new shop. Normally, first stop for a truck is under this track-mounted wash unit



Adjacent lane includes steam cleaning facilities where heavy dirt is knocked-off vehicles. Smaller components go in the cleaning tank. A chain hoist speeds handling

NEW SHOP Keeps Leased Trucks







Next stop is for inspection in either Lane 9 or 10. Each has a 55-ft pit plus portable test units. Oil drains in the pits lead to a 2000-gal, outside discharge tank



If there's not much work to be done, vehicle next goes to the "Quick Service" lanes — 4 or 5. Then they get a final safety check before being returned to service

on the GO

Willett Co. in Chicago designed it
to put vehicle inspection
and maintenance
on a production line basis

If more extensive repairs are needed, trucks go to the general repair area, Lanes 6, 7 and 8. If engine is replaced, Lane 4 would be next stop for dynamometer test



IT'S CALLED THE WILL-A-MATIC. Reason: It's designed to put vehicle inspection and maintenance on a production line basis. Now a little more than a year old, it's service headquarters for The Willett Co.'s leasing operation in Chicago.

Willett leases about 400 power units and 150 trailers to customers in the Chicago area. Another 400 units are Willett-operated. Now running around the clock, the shop handles all except major overhauls on the leased vehicles and much of the company fleet's maintenance.

The shop covers 16,000 sq ft, has 11 drive-through lanes. The floor plan at left shows how it's laid out. Each bay has an automatic, electrically-operated overhead door at each end. There's no need to delay a vehicle on the way in or out.

The building is pressurized. With all doors closed, inside pressure is three pounds greater than outside. This means heat can leak out, but cold can't leak in. There are unit heaters near every door. When the door is opened, they blow warm air toward the doorway to keep constant temperature in that area.

The shop has a built-in exhaust

ventilating system with recessed connections to vehicle tail pipes. Oil, grease, air and water are supplied to each station from a central source.

Operating at full capacity, the shop can handle 35 vehicles at a time. As you'll see from the floor plan and accompanying photos, the shop's traffic pattern is set-up to avoid needless delays.

(TURN TO NEXT PAGE, PLEASE)

New Shop Keeps Leased Trucks on the Go

Continued from Page 103

Customers bring leased vehicles to the shop, park them on the adjacent lot. From here the unit first passes through the wash lane.

In the wash lanes there's steam

cleaning equipment to remove heavy accumulations of dirt from the body and chassis. A truck-mounted wash and rinse unit removes surface dirt.

Parts cleaning is also handled in one of these lanes. There's a chain hoist over the cleaning tank for easy handling. Fork lift trucks are used to bring heavy components to the tank from the work bays.

Two crews of two men each can wash from 80 to 100 vehicles a night with the automatic washer. The wash lanes, like all others in the building, have vapor-proof lighting and unit heaters. They can handle four 16-ft trucks or six tractors at a time.

PM inspection is the next stop

Willett has a detailed "A" and "B" inspection program which it uses on all its leased units. Lanes 9 and 10 are used for these inspections and minor adjustments.

Each has a 55-ft pit and portable test units. The pits are completely ventilated and well lighted. As a protective measure, there's a battery of ${\rm CO}_2$ extinguishers in the pit area which can be controlled from the shop office. Oil drains in the pits lead to a 2000-gal tank. The tank has its outlet outside.

After inspection the next stop depends on the amount of work to be done. If there's not much, the vehicle moves directly to Lane 4 or 5. Both are labelled "Quick Service." They handle repairs which can be made in less than 20 min and have a nearby stock of small replacement parts. Equipment in Lane 4 includes a flush-mounted chassis dynamometer. Lane 5 includes brake and front-end alignment equipment.

If minor body or fender repair and paint touch-up work is needed, the vehicle goes to Lane 3. The lane has an asbestos curtain which divides it into two stalls, one for metal work and paint preparation, the other for touch-up spray painting. There's a blower and ventilation system, vapor-proof lights, drying lamps, and paint storage vault.

General repair area takes up Lanes 6, 7, and 8. They are equipped for all but major repairs. Major equipment includes a flush-mounted two post hoist.

The stock room adjoins this general

repair area. Shop office and oil storage room are beside it. The office is glassed in on three sides. Beneath this part of the building are shower and locker rooms, boiler room and space for a future lunch room.

The night staff handles most of the shop's work load. The crew includes a foreman, 14 mechanics and apprentices, a stockroom clerk, a body and fender man, a touch-up painter, a tireman and four washers. The day crew includes two or three mechanics for inspections and road calls, a tireman, a body man and sometimes a washer.

Preliminary plans for the building called for some solid thinking by President Howard Willett Jr. and Maintenance Chief A. Walter Neumann. Before the plans were made final, they had the foresight to stake out the property in full scale to assure that the various bays had enough space allotted to them to handle all the sizes of vehicles to be serviced.

Shop office has windows on three sides for good view of what's going-on in shop. Next to it is the parts room. Below office are shower and locker rooms for employees



There's a "portable service lane" to handle road calls. Truck has lube equipment, parts supply, hand tools and test instruments. It eliminates "shopping" many a truck



C CONSTRUCTION FLEET MAINTENANCE

Compiled by the Editors of COMMERCIAL CAR JOURNAL

AT YOUR SERVICE ...

Freezing of moisture in air valves

and lines caused by continued exposure to or operation in extremely cold temperatures is a major problem in the construction industry. Bendix-Westinghouse has solved the problem through development of an alcohol evaporator which can be attached to the intake port of TU-FLO 300, 400 and 500 compressors. Alcohol evaporators should not be used with air compressors whose intake port is connected to the engine supercharger or engine air cleaner.

The alcohol evaporator consists of a Mason jar, a cap for the jar equipped with an air intake and filter, a bracket for attaching the jar, a compressor intake port adapter and 3/16-in. copper tubing to connect the cap to the compressor intake port.

Cummins Engine Co. gives these

suggestions for better valve adjustments. "Cold engine" valve clearance is determined by engine design and expected operating temperatures. These clearances are calculated during design, and proved by test. A few thousandths of an inch too much or too little valve clearance will reduce the efficiency of the engine. It may cause extensive damage to its parts. Always adjust valves accurately to recommended clearances.

Incorrect valve adjustment may be caused by. . . .

- Worn valve stems, rocker lever rollers and pins that interfere with accurate gaging.
- 2. Adjusting while camshaft is in the wrong position.
 - 3. Guessing, and other forms of carelessness.

even more critical than valve adjustments. The plunger must be adjusted tight enough so it will force all the fuel out of the injector cup for each firing

all the fuel out of the injector cup for each firing stroke to realize full power and prevent fouling the injector. On the other hand, if the plunger is adjusted too tight, it will cause . . .

1. Flexing or bending of push rods, rocker levers, shafts, etc., until those parts are worn enough to compensate for the misadjustment.

Rapid and extreme wear of camshaft lobes . . . nearly all such indications are due to faulty injector plunger adjustment.

Cracks between valve and injector ports in the cylinder head.

4. Broken injector cups.

Whenever injector plungers are to be adjusted, the injector hold-down stud nuts should first be checked for proper torque. Proper tightening of injector hold-down nuts is important. Insufficient tightening will permit leakage. Too much torque will contribute to cylinder head cracking.

Injector plungers of all engines are adjusted with a torque wrench to a definite torque setting.

 Adjust injector plungers and valves in valve-set position for the cylinder being adjusted. Always adjust injector plunge: before valves.

Check threads of injector adjusting screw and nut to see that they are clean, well-oiled, and free-

turning.

3. With engine in valve-set position for injector being adjusted, turn the injector adjusting screw down until the plunger contacts the cup, and advance an additional 15 degrees to squeeze oil out of cup.

4. Loosen the adjusting screw one turn.

5. Use a torque screw driver or a small accurately calibrated torque wrench to tighten the adjusting screw to torque required.

If a torque wrench is used,

it should be equipped with a screw driver adapter and, it should read in one-foot-pound or in inch-pound divisions. It should have a maximum capacity of no more than 15 foot-pounds.

A bar, screw driver, or any other type of hold-down tool is not to be used when adjusting injector rocker levers by the torque method. To do so would result in a false setting. Template marks and adjusting clips are to be disregarded when using the torque method of injector adjustment.

For valve adjustment the same

engine position is used as in setting the injector.

First, loosen the valve adjusting locknut and back off the adjusting screw. With a feeler gage of proper thickness for the valve being adjusted, insert between the roller and valve stem (or on NH Series between cross head and lever). Turn adjusting screw down until lever or roller just touches the feeler gage. Lock adjusting screw in this position with the jam nut. Always make final valve adjustments after injectors are adjusted, and with the engine warm (oil temperature of 140°F).



Building up track rollers is done right at the job site. All equipment is clearly numbered so mechanics will know what account to charge work to for cost control purposes



Fisher's equipment used on Arizona's Black Canyon Highway project includes a 20 yd Dart and an 80-D Northwestern. Class A cost figures are used when working in rock

Fast, Accurate Maintenance Reports Give Better Cost Control

The Equipment Analysis Book tells the story on each piece of equipment—but it's up to each maintenance superintendent to make sure reports get in on time

"KEY TO OUR cost control system is fast and accurate maintenance reports," says P. H. "Bud" Mentzer, Construction Division equipment supervisor for Fisher Contracting Co., Phoenix, Ariz.

This puts the finger on the maintenance supervisor at each of Fisher's job sites. They're the ones responsible for getting reports in on time . . . and for making sure they're accurate.

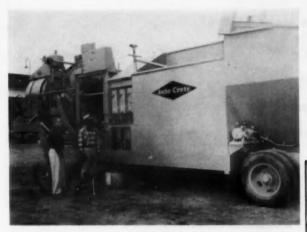
Fisher keeps an Equipment Analysis Book on all its 400 pieces of equipment. It gives a detailed cost breakdown of each piece from the time it's purchased until it's sold. This includes all operation and maintenance costs as well as original purchase price, depreciation and final salvage value.

Mentzer each month gets a dollars-and-cents picture on each piece of equipment. He says: "On a fiscal yearto-date basis, I get a cumulative report on hourly usage, fuel costs to date, repair costs to date, fixed costs to date, and hourly unit costs. With this data, I'm in a good position to decide—for each piece of equipment—whether to make extensive repairs, retain it as is with minor adjustments, or to recommend disposal.

"If the report shows a

piece of equipment has 8000 hours usage, it might not pay to do a major overhaul. At this stage, I supplement information in the monthly analysis by getting historical cost-records from our Accounting Dept. In this way I compare performance and maintenance figures on newer and older equipment of the same type. This is a big help in deciding what's the most economical thing to do with the equipment in question."

Cost Accountant Richard Weindel points out another advantage of the Equipment Analysis Book. He says: "Fixed costs like insurance, taxes, licenses and depreciation continue whether the equipment is used



Equipment Supervisor Bud Mentzer (right) shows new portable batch plant to Cost Accountant Dick Weindel. Knowledge of equipment helps him figure cost records later

By Morris Rosen

or not. If little or no usage is shown in our Analysis Book, we check immediately to see why. If we find it no longer fits into Fisher's work pattern, we get rid of it before it costs us any more money."

The biggest advantage of

the Equipment Analysis Book is that it indicates to management and the Maintenance Dept. any operational or maintenance costs which are out of line for any piece of equipment. Action can then be taken at once before any more money "goes out the window."

Also available from the Equipment Analysis Book is data used to approximate in advance what costs will be on any piece of equipment which the firm buys. This is important when it comes to bidding on new jobs. Fisher can dig up cost figures from previous jobs of a similar nature. This is another reason why it's important that the maintenance superintendent send in accurate reports.

Here's how the cost control system works:

Each time a piece of equipment is

purchased, Cost Accountant Dick Weindel assigns it a number. It is never repeated—even after that piece is sold. The number is painted on the unit so mechanics know what number to charge work to. IBM (which processes the data for Fisher) is notified at once also.

Field office managers send individual weekly equipment reports in each Wednesday for the previous (TURN TO NEXT PAGE, PLEASE)

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Fisher keeps separate fuel reports on all equipment. Non-Highway Gas Report is bright blue for identification when adding up fuel tax rebates

After inspecting the Auto-Crete equipment Weindel (left) and Mentzer analyze the cost records.

Accountants know equipment too, not just figures



Better Cost Control

Continued from Page C3

week. IBM tabulates the figures for each piece of equipment. Each month a summary is made for entry in the Equipment Analysis Book. Weekly reports represent a total charge (operating and maintenance costs) to the particular construction job. Figures are reached by multiplying a job-cost rate by the reported usage.

In its shops, Fisher uses

two job-cost rates in computing costs. If equipment is being operated under adverse conditions such as rock, it is charged a Class A rate. If the same machinery is used in sandy or loamy soil where the toll on tires, tracks and other components is less, it's computed at the Class B rate which is about 10 per cent lower.

Here's how the job-cost rate is determined:

Equipment usage is broken down either in hours, weeks or mileage. This figure is divided into the total cost of ownership. This includes depreciation or rent, repair costs (parts, labor, supplies and tires), fixed costs (taxes, licenses and insurance), and fuel costs.

All like units such as pickups and similar type tractors, are assigned the same rate. Job-cost rate totals are then figured weekly using either the Class A or Class B rates depending on type of service.

Fisher Contracting Co. "rents" its equipment to its Construction Division and to Superior Sand & Gravel, another division. Each is charged for "ownership" and has the authority to stipulate when to buy or sell. The ownership figure is based on total cost of equipment when new, minus estimated salvage value when it's "worn out." Then the difference is divided by the estimated life of the equipment—usually four to 10 years. This figure is divided by 12 to get a monthly charge of "ownership" which is paid by the renting division whether the equipment is used or not.

Fuel costs are posted on a separate card for each piece of equipment. They are forwarded from job sites to headquarters weekly where they are processed by IBM and added to the Equipment Analysis Book. A different color card is used for each type of fuel. A bright blue one is used for non-highway fuels so it is easily spotted when computing fuel tax rebates.

All fuel tickets go to IBM. The computers multiply the number of gallons by unit costs to arrive at a total fuel cost for each piece of equipment.

Fisher's cost control system has been in operation for 18 months now. Everyone is pleased with its results. However, the fleet's officials point out there's always room for improvement. With the mechanized data processing system, it's relatively



General Supt Ken Willis (left) and Warren Hunter, vice president for domestic construction, check IBM Equipment Analysis sheets. Next they'll go to equipment supt

Ed Dunn is the IBM supervisor for Fisher. He's in charge of running off Equipment Analysis sheets and making up special reports such as the fuel cost analysis studies



easy to make changes in the program and to add or delete certain reports as needed.

Recently Fisher had a special fuel cost per hour analysis made. Says Bud Mentzer: "It sparked a kind of educational program that's resulted in a reduction of fuel overloading. It's also eliminated fuel 'feather-bedding' and reduced errors in fuel reporting."

Fisher officials are now

contemplating replacing the fuel costs analysis with a tire cost-per-unit breakdown. Explains Mentzer: "We expect it to serve the same function as fuel cost accounting did by making our employees more conscious of tire costs. Most important, it will immediately identify the careless operator and pinpoint responsibility."

Fisher has had an IBM system for some time. It uses the same personnel to run off the Equipment Analysis sheets. Only added costs have been for designing and printing the new forms.



At the Society of Automotive Engineers Summer Meeting,
C. S. Morris, project engineer, Caterpillar Tractor Co.,
presented an interesting talk on construction equipment
cooling problems. Condensed here are his ideas which you
the maintenance man can use. They are the . . .

Aspirin for Cooling System Headaches

TO PARAPHRASE a famous quotation, "Old tractors never die, they just overheat." Actually, today's tractors are more prone to overheat than older ones because of the higher horsepowers and added heat loads encountered on current construction equipment.

One of the most frequent complaints is core plugging. It usually occurs in track-type tractors engaged in land clearing and logging. Plugging ranges from leaves plastered to the core by the air stream, to redwood bark and dust caked between the fins and tubes. This is a very serious problem and can happen quickly.

Only high pressure water or air will blast loose the packed material in the core. When hot days and heavy loads are encountered at the same time, it is often necessary to stop the machine and clean the core four or five times a day in order to keep the machine working. This requires considerable down time.

Using radiator cores with an in-line tube pattern and not more than six fins per in. alleviates this plugging problem by allowing the debris to pass through more easily. A core of this type is also much easier to clean. However, its use is only practical on machines with a large frontal area.

To use dense cores where plugging is a problem, provide some kind of air filtering or screening. Screens on the front of the radiator guard or grill merely move the plugging condition from the core to the screen, but the screen is much easier to clean than the core.

However, even with a screen, a tractor working in land clearing with a suction-type fan picks up too much debris on the front of the radiator or screen. Most vehicles in this type operation use a blower-type fan—one which blows air through the core from rear to front. This means that screens must be installed behind the fan, either directly on the fan guard or on the hood sides. Screens on the hood sides are vulnerable to tree and branch damage unless they are carefully designed. These should be made of heavy mesh for strength with a fine mesh inside.

Another method of keeping debris out is the self-cleaning fan. This is a conventional sheet metal fan with a ring riveted to the ends of the blades and a disc riveted to the fan hub on the back side. Space between the ring and the disc is laced with spokes. This type fan has offered some success in keeping debris from collecting in the core. There are disadvantages, the major one being that fan efficiency suffers from the effect of the spokes and requires higher speeds and more horsepower.

A front-mounted cable control or hydraulic unit on a bulldozer can be a serious air flow obstruction. Some discretion must be used in sizing the cooling system for machines which use this type of equipment.

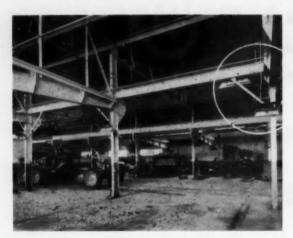
A blower-type fan is no less efficient than a suction-type, but on a heavily loaded machine that has the engine compartment enclosed with brush guards or side doors, the average air temperature to the radiator core can run 20 to 30 deg higher than ambient.

On a hot day, this can make a decided difference on the type of work the tractor can do unless it has been specifically designed to run under these conditions.

Sandblasting of radiator cores is a problem often occurring on a machine equipped with a blower-type fan. It most often happens on track-type loaders. On these machines the bucket is directly in front of the radiator. Even though this type machine usually has an enclosed engine compartment, enough dirt gets into the air stream to do considerable damage.

Sand is thrown off the blade directly onto the core. A machine operating in an abrasive material can literally tear a copper radiator core to shreds in a short time. Only an efficient maintenance program will save the core.

Core life can be substantially increased by using steel fins. However, the tubes are still vulnerable to the sand. If room is available, make the core thicker by adding another row of tubes. Make the row nearest the fan out of stainless steel.



Whayne's shop was formerly a State Fair display building. The gas-fired infra-red heaters (circled) keep the floor and tools warm in spite of frequent door opening



Heaters in side bays are suspended from overhead beams. Besides giving direct heat, they also give off infra-red rays which are absorbed by the floor and are re-radiated

" Infra - Red" Heats Maintenance Shop

Whayne Supply Co. bought an unheated display hall to use for heavy maintenance. Infra-red gas heaters did the job well—and at lower cost than anyone expected.

WHAYNE SUPPLY CO., a Louisville, Ky., construction equipment distributor, needed a shop. It found the building in Kentucky's old State Fair Grounds.

It was formerly a display hall. As such it had high ceilings, wide floor expanse. Here was plenty of elbow room for doing heavy equipment repairs and overhauls. It has side bays flanking a 40-ft wide, 20-ft high center area.

But it was a "barn" to heat.

There was nothing to start with since the only time the building had been used was for a couple weeks in September for the annual State Fair. But Whayne wanted to use it the year around.

First thought was to use portable heaters such as used at construction sites for limited spot heating. However, a new type heating system using infra-red rays answered the problem and was far more economical than the company expected.

Whayne's new building is 100 x 160 ft, has concrete walls, a steel roof and a 4-ft ribbon of windows totaling over 1600 sq ft of glass area around the top. The

high center bay, plus the large window area, made the building hard to heat by conventional methods.

Now the 14,000 sq ft building

is heated by individual gas-fired infra-red heat generators suspended overhead and giving direct heat where it's needed. Whayne keeps a 65 deg temperature in the building at a cost of 0.242¢ per day per Fahrenheit degree below 65. Heating bill for the 1957-58 season was \$820.07 for a 235 day season of 3383 degree days. The natural gas cost 0.556 per 100 cu ft. The building is heated 24 hours a day.

The Perfection-Schwank heat generators first warm the concrete floor where the heat is most needed. The large doors, which are opened to move equipment, let some of the warm air escape. But the concrete floor absorbs heat, then re-radiates it so that the building temperature actually varies very little.

The infra-red gas heaters are

made by Perfection Industries, a division of Hupp Corp. Air is mixed with gas in a chamber behind the ceramic burner element. The mixture then passed through tiny holes in the unit where it burns as a separate flame at each hole. The ceramic surface generates infra-red energy in the range of 1.5 to 6 microns which concrete and similar materials readily absorb and re-radiate.

No direct ventilation is required when the heaters are installed in well ventilated areas. Burners are approved by the American Gas Assn. and Underwriters' Laboratories for non-and semi-hazardous locations.

In Whayne' building, there are 24 heaters each with two ray-heads and eight with four of them. Each rayhead generates 12,000 Btu's. As shown in the accompanying photographs, they are positioned at a 20 deg angle to give even heat distribution and to keep mechanics working directly beneath them from getting too hot. They are mounted below the overhead cranes to avoid interference.

The heaters

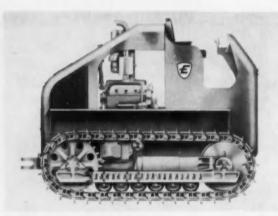
burn natural gas piped in by the local utility. They can also burn LP Gas and they're fully automatic.

When the thermostat calls for heat, it opens a solenoid valve to let in the gas. The pilot light ignites it.

Whayne estimates the infra-red heaters do the job for about 30 per cent less than any other system. In addition, the company reports that the radiant heat principle gives greater mechanic comfort since even on extremely cold days the floor and tools are warm to the touch.

Editors Note—Service Data on Oliver engines was received too late to be included in last month's Construction Equipment Specifications section. We suggest you cut this page out and put it with the service data in the July issue

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Eimco's new 103 Series tractor has a 100 hp Cummins or GM diesel engine center-mounted with the operator up front. New unitized construction has track frame and diagonal brace cast of electric steel in one piece. Power train has a torque converter and Eimco's "Unidrive" teamed with dual final drive to give four forward and reverse gears. Power shifting is possible at any speed—even forward to reverse. Dual final drive allows quick turn-arounds with one track running forward and the other in reverse. Basic tractor weighs 15,000 lb. It's rated at 13,500 lb drawbar pull.

What's New...

R. G. LeTourneau, Inc., Longview, Tex., has added two new electrically-powered cranes to its line of construction equipment. One has a 30 ton capacity, the other 45 ton. Electrically-powered outriggers are controlled from the operator's cab. Boom swing and hook line are electrically operated also. Crane moves on the "electric wheel" principle. Power for the entire rig comes from a DC generator turned by a Cummins diesel.





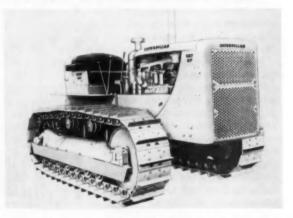
Here's a CCC carrier for 35 to 70 ton cranes. Drive is 8 x 4 with power to both rear axles. Made by the Crane Carrier Corp., Tulsa, Okla., it's available with double reduction or planetary drive rear axles.

Chrysler is adding a Diesel series to its industrial engine line. Engine is the air-cooled Deutz diesel offered in 16 basic models from nine to 300 hp. The German-built diesels deliver full-rated power in from 30 to 60 seconds after a cold start because of rapid warm-up. Chrysler will offer complete parts and service throughout the country.

A new worm gear winch has 2000 lb capacity, can be hand or power-operated. It's the Model WGW-1 made by Little Giant Products, Peoria, Ill. With worm drive, it requires no brakes as it's self-locking. Winch weighs 14 lb and has machine cut gears for smooth operation. Small size makes it adaptable to many applications.

SynchroTouch Transmission Control is now available on Caterpillar DW20 and DW21 Tractors. It gives instant gear shifting—up or down—by just dialing the desired gear range. Clutch pedal is used only for starting from a standstill. SynchroTouch is optional equipment and is installed on the direct drive transmission used in the machines.

The new Cat D7 Series D tractor has a turbocharged engine developing 140 flywheel horsepower—nine per cent over previous models. Greater engine torque increases lugging ability and drawbar pull. The new engine, says Caterpillar, has more horsepower per lb of tractor weight than any crawler in its size class. Maintenance has been reduced by a new dry-type air cleaner. New rollers and idlers require no lubrication until they are rebuilt.





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Midland products include:

Air brakes for the truck and trailer industry Vacuum power brakes for the automotive industry Equipment for the Transit industry
Control devices for the construction industry Midland Welding Nuts for assembling metal parts Write for detailed information



MIDLAND-ROSS CORPORATION



Owosso Division · Owosso, Michigan ONE OF THE "400" LARGEST AMERICAN CORPORATIONS



Tough enough to withstand the underhood heat and hard knocks of fleet use. That's what you get in the hard all-rubber case of the Delco Extra-Duty battery. And you'll find that ruggedness is a built-in quality throughout the Delco Extra-Duty. ■ Heavy-duty plates, specially designed grids, rubber separators, protected connectors − plus freshness that only a dry charge battery can provide—all add up to longer battery life. ■ That's why profit-conscious fleet owners choose Delco. They can see the proved economy in cost per mile over the long haul. ■ Protect your profits. See your U-M-S distributor for Delco Extra-Duty batteries and other fine replacement parts.

QUALITY BUILT BY DELCO-REMY . . . AVAILABLE EVERYWHERE THROUGH .



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P RA UX FLUORESCENT ENAMEL

for safety and decorative painting of

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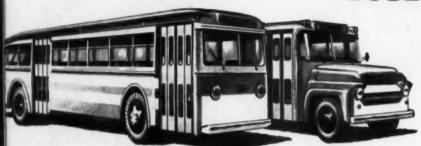
TRUCKS...



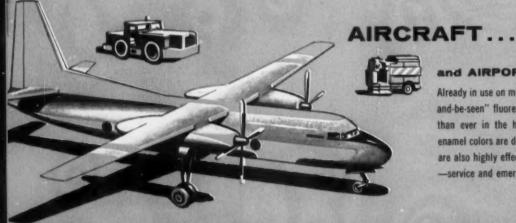
High-visibility Du Pont "Pyralux" Fluorescent Enamel means opportunity for more dramatic identification of vans, over-the-road trailers, national fleets, local delivery units. The colors bring positive safety advantages for highway and street travel—in contrast to drab unpainted surfaces or even conventional finishes

COSMIC YELLOW

BUSES...



School buses and public transportation fleets can increase all-around visibility with "Pyralux" Fluorescent Enamel for additional protection of passengers on crowded streets and highways. The hyper-intense "Pyralux" colors are based on new pigments that extend the useful life of fluorescent enamel to many months of continuous outdoor exposure.



SUNSET ORANGE

and AIRPORT FACILITIES

Already in use on military and civilian aircraft, "seeand-be-seen" fluorescent colors are now more vital than ever in the heavy airways traffic. "Pyralux" enamel colors are distinctive at long distances. They are also highly effective for use on ground facilities —service and emergency vehicles.



PYRALUX FLUORESCENT ENAMEL

E. I. DU PONT DE NEMOURS & CO., INC.

COMET REL

These four brilliant, last drying colors are packaged in gallons and quarts. Du Pont T-8805 Reducer is available in quarts, gallons, and fives. "Pyrafux" Clear in quarts and gallons, for application over the colors, prolongs their exterior durability.



PIONEER and LEADER

"PIGGY BACK" HYDRAULIC 5TH WHEEL

STURDILY BUILT HEAVILY REINFORCED THROUGHOUT

STRONGEST LIFT 5th WHEEL MADE!

LASTS LONGER - TAKES ABUSIVE TREATMENT.

CONSTRUCTED FOR CONTINUOUS HARD HITTING SERVICE.

CAN BE FOUND WHEREVER TRAILERS ARE SPOTTED.

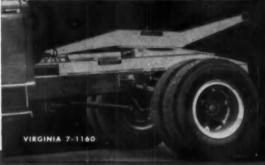
AT TRUCKING DOCKS ... FOR RAILROAD "PIGGY BACK" AND STEAMSHIP "FISHY BACK" OPERATIONS.

YOU WILL LIKE ITS DEPENDABLE PERFORMANCE Adapt your Bartlett Hydro Lift Wheel To Make a Tow Truck.

Slip-in Boom - easily inserted and removed.

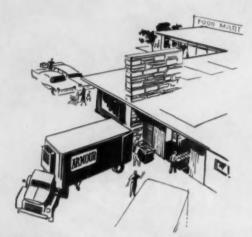
Will lift any object that does not out-balance tractor front wheels.

LIFTS - 24" OFF GROUND

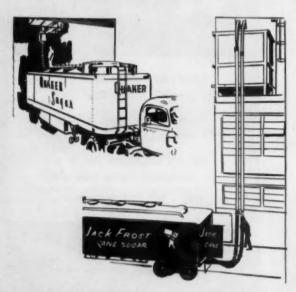


BARTLETT TRAILER CORPORATION 3080 ARCHER AVENUE - CHICAGO 8 - ILLINOIS

Are You Telling Your Stockholders about Your Trucks?



On the cover of this report, we show an Armour truck delivering fresh meets and other products direct to a supermerket customer.—ARMOUR & CO.



Latest in a continuing series of developments to provide industrial customers with better service is this pneumatic bulk sugar trailer being gravity loaded at the Philadelphia refinery. . . . As demonstrated by this second truck in operation at a user's plant, sugar can be blown at a rate of 1,000 pounds per minute to a bin on the roof to be fed by gravity to point of use.—NATIONAL SUGAR REFINING CO.

TRUCKS ARE IMPORTANT in your business. You know that. Question is: Do your stockholders know they are truck operators?

There are three reasons why they should . .

- It underlines the importance of your job as fleet manager.
- It shows stockholders how trucks contribute to the efficiency, profit and dividends of their company.
- It gives the trucking industry the kind of public relations it needs.

And those stockholders will be interested in more than just the trucks you own or lease. Give them the broad picture. Include examples of efficient truck transportation by common or contract carriers pulling freight for their company. Show them how the product reaches the final consumer by truck.

Around these pages are several examples picked-up from a random selection of annual reports. They're typical of what can be done. So find the man

A familiar scene—one of the many trucks which deliver Gulf high quality products to satisfied customers.—GULF OIL CORP.



Examples shown here point the way to benefits for you and your company as well as for all the trucking industry

Specially designed delivery equipment for industrial customers—Pneumatic "blower" truck (bulk dry sugar)—Tank truck (liquid sugar).—AMERICAN SUGAR REFINING CO.

in your organization who decides what's included in the annual report, talk it over with him.

There are several benefits, both direct and indirect. For example . . .

- It could help in getting a fatter budget for your operation.
- It could lead to purchase of newer and more efficient vehicles.
- It could give top management a better perspective on fleet operation . . . get them thinking of it as an investment that returns a profit and not as an expense that needs cutting.
- It could convince stockholders, as part of John Q. Public, to take a more enlightened view when it comes to truck taxes and regulation.
- · It could snowball into one of the best public relations efforts the trucking industry has yet seen. Don't forget, those stockholders have laid their money on the line and want to protect that investment. Give them the word, they'll talk it up.



The load of Gold Bond products on this dealer's truck is easily identified by our distinctive orange and tan trademark stripes.—NATIONAL GYPSUM CO.

The vehicle pictured below is one of eight truck tractors The vehicle pictured below is one of eight truck fractors and 20 trailers used to transport materials between plants of the Company.... A striking example of time saved in the flow of materials, thereby reducing inventory investment, is turnished by our experience with parts shipments to Outboard of Canada. Formerly shipped by rail from Milwaukee, there was a slow terryboat ride across Lake Michigan, delay at rail transfer points, and time lost in customs at port of of rail transfer points, and time lost in customs at port of entry into Canada, which added up to a total in-transit of from 5 days to 2 weeks. . . . With the extension of our truck route to Peterborough, the same shipments reach destination in 17 hours.—OUTBOARD MARINE CORP.





The specially prepared truckload of Mueller Brass Co. products, shown in full color on the front cover of this report, clearly demonstrates your company's wide diversification.—MUELLER BRASS CO.



FLEET OWNERS MOST VERSATILE COST-CUTTERS!

easier! Save job time and operating costs! Just put a GMC Dual-Purpose F370 on your dense traffic, city-suburban deliveries or highway hauls - mount up to 18-foot bodies or haul 40-foot trailers.

Prove it to yourself! Move loads faster and More than 200 major fleets have proved that no other truck can compare with the earning power and durability of GMC's F370. Have your GMC Dealer prove it to you, too, today. GMC Truck & Coach-a General Motors Division.

NO ONE BUILDS A MORE COMPLETE LINE OF TRUCKS!

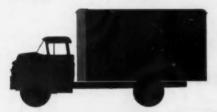
Here are two examples of GMC Extra Value highway haulers:



Haul up to 1,824 extra payload pounds with this new DLR8000 48" aluminum "Tilt-Cab Cruiser"! Independent front suspension, Stabilized Air Ride, front and rear, make it the easiest driving and smoothest riding tractor on any highway. Haul maximum trailer lengths and maximum loads in every state. GCW is 61,000 lbs.







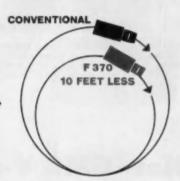
In the same over-all length, the GMC Dual-Purpose F370 can mount bodies up to 1½ feet longer . . . average 75 cubic feet more cargo area than conventional models.

And they can haul this extra payload with the short 89-inch BBC. Load distribution is more ideal with extra weight on the front axle.

EASIEST DRIVING!

Shorter turning (10 feet less) means easier driving and parking, no wasted time or effort.

Easy-in, easy-out step height is good news to drivers, too. Short hood and full-wrap windshield makes for better vision, everywhere.



MODEL F370 QUICK FACTS GVW-19.500-22.000 lbs.-GCW-32.000 lbs.

AXLES......Front—4,500 and 7,000 lbs. capacity
Rear—Sgl. speed 15,000 lbs. capacity
Two-speed 15,000 lbs. capacity

16,000 lbs. capacity

BRAKES.....Vacuum and air-over-hydraulic ENGINES......140 hp., 160 hp. Six and 200 hp. V-8 TRANSMISSIONS......4-speed synchromesh

5-speed direct synchromesh 6-speed Torqmatic



BEST ACCESS!

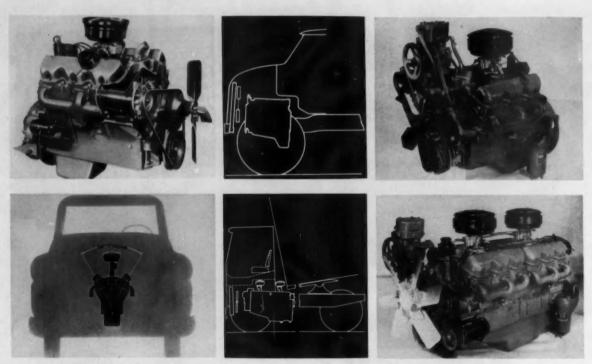
Note the wide-opening hood and swing-away side panels for the most convenient, quickest servicing of any truck in its class.

From ½-ton to 45-ton— General Motors leads the way!



This is the lightest weight 90" BBC in its class, the GMC D860! Weight-saving features throughout permit you to haul up to 1,270 more pounds payload. Its popularity is setting new sales records. Its performance is setting new economy and endurance records. Power is the famous 189 or 210 hp. 6-71SE diesel. GCW to 65,000 lbs.





New engines fit smaller cabs. Lightest in the new line is the 305-cu in. model (upper left), Largest six is the 401-cu in. version (upper right). Not shown is a 351-cu in. V-6 which also doubles up to make a 702-cu in. "Twin

Six" V-12 (bottom right). All new engines are 60 deg "V" design (bottom left) and are very compact. Top silouette shows V-6 position in regular cabs. At bottom center is V-12 in GMC's 48-in, tractor with trailer at full tilt

New GMC V-6's Are Compact

GMC HAS ANNOUNCED a series of V-6 gasoline engines. Included are 305, 351 and 401-cu in. displacement models . . . plus a 702-cu in. V-12 (a doubled-up 351).

One big feature is their compactness. In fact one reason the engines are not presently available is that GMC has some new truck models in the works designed to make the most of this feature.

Second major feature is that the engines develop maximum torque at moderate rpm's. Result, says GMC, is less wear giving longer life . . . "between 100,000 and 200,000 miles without major overhaul."

Horsepower and torque ratings have not yet been definitely pinned-down. Reports COMMERCIAL CAR JOURNAL'S Detroit Technical Editor Joe Geschelin, "Here's the best that can be said now . . .

305-cu in, engine—260-270 lb ft torque at 1600 rpm, 150-165 bhp at 3600-3800 rpm.

• 351-cu in. engine—312 lb ft torque at 2000 rpm, 180 bhp at 3400 rpm.

The New Engines in Brief

FACT		ESTIMATE			
Disp.	Bere & Stroke	Horsepower	Torque		
(cu in.)	(in.)	(bhp @ rpm)	(lb ft @ rpm)		
3051	4.88 x 3.58	160 @ 3700	266 @ 1600		
3512	4.56 x 3.58	180 @ 3400	312 @ 2000		
4012	4.88 x 3.58	205 @ 3200	377 @ 1400		
7023	4.56 x 3.58	275 @ 2400	630 @ 1300		

^{1—}Comes in three versions. 205A with single-barrel carbureter, single thermostat, road draft crankcase ventitation. 305B with single-barrel carbureter, two thermostats, positive crankcase ventitation. 305c with 2-barrel carbureter, two thermostats, positive crankcase ventitation. 2—2-barrel carbureter, two thermostats, positive crankcase ventitation. 3—V-12 "Twin 6" (351 x 2 - 1 block and 4 heads) with two 2-harrel carbureters, three thermostats and positive crankcase ventitation.

401-cu in. engine—377 lb ft torque at 1400 rpm,
 205 bhp at 3200 rpm.

• 702-cu in. 'Twin Six' engine—630 lb ft torque (TURN TO PAGE 142, PLEASE)

The world's most popular

Power Brake is Hydrovac

because ...

Vacuum power provides instant, effortless power braking plus maximum dependability and safety—even if power should ever fail, brakes can be applied manually.

Vacuum power saves dead weight. This can add several hundred extra pounds to every pay-load. And extra pounds mean extra profits.

Vacuum power does the job simpler and better with less maintenance and lower original cost!

Vacuum power steals no horsepower as it is completely free of compressor drain on engine power.

Unchallenged facts like these have made Hydrovac® Vacuum Power Braking first choice among truck operators—in fact, with over $5\frac{1}{2}$ million sold, more Hydrovac units are in use than all other types.

HYDROVAC (VACUUM HYDRAULIC) POWER BRAKING BY BENDIX

Bendix PRODUCTS South Bend, IND.

Sendix AVIATION CORPORATION

South Bend, IND.

Sendix AVIATION CORPORATION



Included in new line of tandem-axle construction trucks are the Model No. 2064 (above) rated up to 40,000 lb GVW and the Model No. 9064 (above, right) rated up to 75,000 lb GVW with 90-in. BBC dimension for mixers up to 10 cu yd







Maintenance accessibility includes removal of radiator core by unbolting only bumper and grille. Fender and grille can be removed in five minutes for engine work

White Describes Construction Truck Line...

A NEW LINE of tandem-axle construction trucks engineered for maximum payload and durability in ready-mix concrete and materials-hauling operations is available from White Motor Co.

The new trucks are for use with dump bodies, dump trailers, concrete mixers, flatbed bodies and other specialized operations. They are offered in four model designations, both gasoline and diesel, from 35,000 to 75,000 lb GVW. A wide range of component options permits tailoring the chassis, engine, transmission and axle combinations of each model to the requirements of the operator.

Included in the new line are the . . .

- Model No. 2064—35,000-40,000 lb GVW.
- Model No. 4264—40,000-75,000 lb GVW, 5 to 10 cu yd mixer capacities.
- Model No. 9064—45,000-75,000 lb GVW, 5½ to 10 cu yd mixer capacities, 90 in. BBC.
- Model No. 4464D (diesel engine)—43,000-75,000 lb GVW, 6 to 9½ cu yd mixer capacities.

Frames are double-channel of chrome manganese (TURN TO PAGE 136, PLEASE)

The Line in Brief___

The Trucks

Model	GVW	Wheelbase	CA	BBC
No.	Range (Ib)	Range (in.)	Range (in.)	(in.)
2064 4264 9064 4464D	35-40,000 40-75,000 45-75,000 43-75,000	150-190 158-224 158-186 176-224	85%-125% 84-150 96-124 102-150	102 108 ¹ / ₂ 90 ¹

¹⁻⁶² in, centerline of front axle to back of cab.

Their Powerplants

Engine	Truck Medel No.			
Model No.	Standard	Optional	(Bhp @ rpm)	(lb ft @ rpm)
Gasoline 145 450A 462A 470A 490A	2064 9064	4284 4264 3064	145 @ 3200 145 @ 3000 to 215 @ 2900	270 @ 1600 328 @ 1400 40 @ 1200
72A ¹ 69A ² 70A ³	4484D	4484D 4484D	180 @ 2100 190 @ 2000 220 @ 2100	504 @ 1525 580 @ 1300 606 @ 1600

1-NH180, 2-HRFB, 3-NH220.



You're invited to see how grease affects your profit picture

Texaco has produced a film called "Shear Magic". It explains why and how grease has kept pace with technical advances in your fleet equipment.

Like everything else, grease is no longer simple.

How could it be? On the road today, grease has a tougher job to do than ever before. Speeds are faster, loads heavier, distances greater. All the more reason why you'll find this film interesting.

"Shear Magic" is not a sales film.

It is devoted entirely to helpful information about greases. You will see how only the right greases protect against heat, water, cold, dust, shock and other problems you encounter on the road. You will learn how the right grease schedule—one planned exactly for your operation—can help you control costs.

If you'd like to switch off the lights and view this film, mail the coupon today.

Texaco Inc.
Room 2006, Dept. CCJ-G-11
135 East 42nd Street,
New York 17, N. Y.

Please send me more information about a free showing of "Shear Magic" to my organization.

Name

Company

Address

LUBRICATION IS A MAJOR FACTOR IN COST CONTROL

Here Are Two New "Rubber" Suspensions

... by Western Unit Corp.

W ESTERN UNIT Corp. has introduced a new suspension for van-type trailers. It combines chromevanadium steel leaf springs with neoprene O-rings.

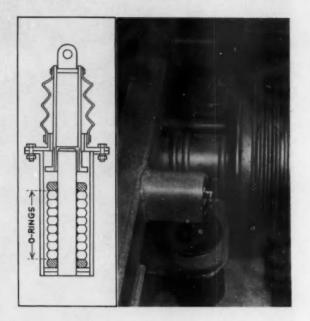
O-rings are stacked one atop the other in a lubricated steel cylinder. Under no-load (up to 4000 to 6000 lb), the leaf springs take all the weight. (Since the leaf springs are designed for more flex than normal leaf springs, they give a smoother ride) even under partial load conditions.

Under loaded conditions, the

combination of the O-ring springs plus the leaf springs carry the weight. Construction of the O-ring springs is shown in the drawing. SAE 20 non-detergent oil is used in the cylinder to cut wear and friction.

Chief advantage is a smoother ride. Says Western Unit, they gave up to "40 per cent smooth-out of bumps during impactograph tests." Bekins Van & Storage is having them installed on 36 semi-trailer vans now on order.

O-ring component of the suspension starts to bear the load after the leaf springs depress about an inch. Despite the softer ride, there's little vertical movement. Unloaded, van's floor height is about 30½ in. With 18,000 lb on the rear axle, floor height is 29 in.



... by Utility Trailer Mfg. Co.

TILITY TRAILER Mfg. Co.'s new suspension uses eight rubber blocks per axle. Blocks are rhombus-shaped . . . a rectangle with slanting, parallel sides. Their resistance to being pushed "square" provides the "spring."

In bearing axle loads up to 18,000 lb, they compress up to 2% in. at most, says Utility. Blocks can be had solid or with a varying number of holes . . . thus changing their capacity and/or "softness" of the ride.

Once the brackets to hold the

blocks are installed, it takes about 30 min. to substitute softer or harder blocks. Weight saving over conventional leaf spring suspension is about 160 lb per axle, says Utility.

Advantages are being able to attain maximum legal height and/or a softer ride for fragile cargo (baked goods, for example).

Been fishing for Instant Oil Control?

Install AMERICAN HAMMERED KROME-OIL

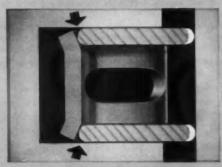
with Stainless Steel Oil Rings

Oil passing around the back of the oil ring under high vacuum or deceleration is one of the main causes of smoking. American Hammered stainless steel oil rings stop this oil loss due to high vacuum or deceleration in modern, high compression engines. New design is the reason why (see diagram below).

The new circumferential end abutment design assures perfect tension and better oil control. The ring does not depend on the bottom of the groove for pressure . . . is not affected by variations in groove depth. Side rail pressure against sides of groove is also independent of these factors.

Stainless steel oil rings are matched with preseated compression rings. Both are chromeplated for longer life, both seat instantly.

Try Krome-Oil on your next job, new or older model, regardless of cylinder condition. Krome-Oil sets don't fail. No comebacks. Try just one set and you'll see.



The angle of the shoulders (arrows) on which the side rails depend for outward radial pressure produces the side pressure which holds the rails snugly against the sides of the pressure. Result no passage of oil around the ring—no smoking.

The exclusive design of the stainless steel expander spacer assures full support to the chrome-faced rails. No flutter, no instability.

AMERICAN HAMMERED

Automotive Replacement Division MUSKEGON, MICHIGAN

A Division of Sealed Power Corporation

Initially both the straddle carriers for containers described here will be operated in the 50th state, Hawaii. They'll be used with containers designed for Matson Navigation Co.'s trailerships (No. 8 container, June, page 131). When containers are in Honolulu, carriers will be used to interchange them between the ships, trailer chassis and the narrow-gage Oahu Railway. . . . Editor.

Two New Straddle Carriers for Containers Announced

... by Clark Equipment Co.

CLARK EQUIPMENT Co.'s Industrial Truck Division now offers a straddle carrier for containers. Called the Series 500 "Van Carrier," it has a 50,000-lb capacity, handles containers measuring 8 x 8 x 24 ft long.

It can drive over a flatbed trailer or string of railroad flatcars to pick-up or set down a container in any location. Its lift is high enough to clear other containers.

It is built to lift container boxes

from either the bottom or the top. With slight modifications, it will handle 8-ft wide containers 4 to 9 ft high, 8 to 40 ft long.

It has single-wheel tandem in front, single wheels at the rear. All six are individually sprung on coil springs. All are steering wheels with power steering standard. Brakes on all wheels are vacuum-powered hydraulic.



Wheelbase (from centerline between

the two front wheels to centerline of rear wheel) is 201 in. Overall height goes 236 in., overall width 155 in., overall length 442 in. Inside turning radius is 183 in., outside 363 in. Minimum intersecting aisle is 240 in.

A 6-cyl Hercules gasoline engine supplies power through a Clark torque converter and Clark 5-speed transmission. Four hydraulic cylinders provide the lift.



... by Hyster Co.

HYSTER CO.'S container straddle carrier is designed for containers measuring 8 ft wide, 8½ ft high, 24 ft long. Maximum lift is 40,000 lb.

Carrier stands about 20 ft high, 12 ft wide, 24 ft long.

A frame hoist inside the arch

lifts containers from the top. Hydraulically-operated hooks drop into receptacles at each corner of the box.

Inside height of about 14 ft allows the carrier to lift containers up to five feet off the ground. It can move them around at speeds up to 25 mph.

Better products, faster, from your Bower bearing jobber:





HONING PROCESS mows down microscopic imperfections still left on bearing raceways after final grinding.

Bower mows down sub-miniature "mountains" so bearings roll longer out on the road



Bower hones bearings to cut friction and wear ... give you more mileage with less maintenance

Finish grinding of bearing raceways still leaves minute surface blemishes—"mountains" under magnification. So Bower takes a costly extra step... uses a honing operation to smooth off these microscopic "mountains."

Super-finished raceways offer less resistance to rollers. This reduced friction naturally results in less wear and longer life for Bower tapered roller bearings in all over-the-road conditions. You get more mileage, more profit from every unit. Precision-engineered Bower bearings save you time and labor in the shop, too.

Your Bower jobber can give you fast delivery on his complete line of Bower tapered and straight roller bearings. Call him next time you need replacements!

BOWER ROLLER BEARINGS

FEDERAL-MOGUL SERVICE

DIVISION OF FEDERAL-MOGUL-BOWER BEARINGS, INC. . DETROIT 13, MICHIGAN



August News Roundup

D.C. Transit Proposes Monorail System

WASHINGTON, D. C.—D. C. Transit has proposed a 116-mile monorail system as a way to ease traffic congestion and improve local transit in the nation's capital. Two lines are proposed. Both would use a common downtown terminal. One would run from Rockville, Md., through Washington and Beltsville, Md., to Friendship International Airport. The other would serve Andrews Air Force Base, Jones Point, the CIA and Chantilly.

Pa. Turnpike Sets Minimum Speed

HARRISBURG, PA. — Pennsylvania Turnpike Commission has set a minimum speed of 35 mph on the toll highway. Says the announcement, "the regulation will apply only on the level highway... does not affect vehicles on turnpike inclines." According to the Commission, the move "might discourage some of the unexcusable rear-end accidents we have been plagued with in recent months."

Mack Merges to Expand

PLAINFIELD, N. J.—If plans are OK'd by companies concerned, North-

east Capital Corp. will be merged into Mack Trucks, Inc., next month. Merger is expected to increase Mack's working capital by some \$12 million, will provide funds for expansion. Part of the money, says Mack, will be used "to purchase the plant and branch facilities of the Brockway Motor Co. division, now leased by Mack, and to enlarge those facilities."

Medical Guide for Judging Driver Fitness Available

CHICAGO American Medical Assn's Committee on Medical Aspects of Automobile Injuries and Deaths has just issued a guide to physicians on their role in helping prevent traffic accidents through advice and treatment of patients. In addition to specific medical advice, it summarizes the broader aspect of the problem. You may find it a help in working with your fleet physician on driver examinations. Single copies are free. Write: American Medical Assn., 535 North Dearborn St., Chicago, Ill. Ask for, "Medical Guide for Physicians in Determining Fitness to Drive a Motor Vehicle."

Allstate Insurance and Markel Join Forces

SKOKIE, ILL.—The Allstate Insurance Companies will insure truck fleets for which Markel Service, Inc., provides safety engineering service. Allstate presently has some fleet business including that of its parent company, Sears-Roebuck. Allstate now writes eight lines of insurance (automobile liability and collision, personal liability, fire, life, commercial fire, commercial liability, accident and sickness and small boat). It has been making money on its automobile collision coverage, losing on the liability end. Markel's former insuring



John L. Springer (right), director of the Western Highway Institute, and CCJ's Editor Bart Rawson, were two of the speakers at the Truck-Trailer Manufacturers Association's 11th annual summer meeting held last month at The Homestead, Hot Springs, Va. Mr. Springer discussed Hawaii's trucking industry. Editor Rawson described trucking operations in Alaska (CCJ Jan. pg. 69).

company, American Fidelity & Casualty Co., has been incurring underwriting losses on its truck insurance along with other problems. Markel owns 28 per cent of AF&C, is its sole agent.

Philadelphia Wants to Consolidate Commuter Transit Ownership

PHILADELPHIA — City officials here propose to buy railroad commuter lines serving the city. They would be operated by a non-profit municipal corporation. Railroads' main objection: We don't want to sell the right-of-way. City bases its pro-



Halfway between Truck-Trailer Manufacturers Assn. Summer Meeting last month at Hot Springs, Va., and a week's swing through Indiana, Commercial Car Journal's Mobile Editorial Team stopped at Jennerstown, Pa., to check progress at the Interstate Commerce Commission—Bureau of Public Roads brake tests. They're using the per cent grade shown here to compare the operating characteristics of vehicle-by-vehicle and axle-by-axle braking. Watch next month's issue for details on how these tests could affect future ICC brake regulation.

Mr. Albert Isbell, Shop Superintendent, says:

"We solved our bearing problems 10 years ago ...with



The Isbell Construction Company owns and meIntains over 1500 Diesel units operating in temperatures ranging from 40° below zero to 130° above—from 1000 to 9000 ft. elevation—all in heavy construction work—and giving longer service with trouble-free CLEVITE 77 bearings.

CLEVITE 77!



Covering five western states, Isbell specializes in mining construction and general heavy construction. The job shown is a U.S. Highway 60 widening and aligning job, south of Salt River Canyon. They have been getting as much as 8,000 hours on Diesel engines before overhauls. Albert Isbell says: "We had trouble with bearing performance ten years ago. We had to have a bearing that would stay on the job—we found it in Clevite 77. Now, we use nothing else."

Fleet operators and engine rebuilders everywhere have learned that Clevite 77 bearings are the highest duty bearing available—anywhere. Patented tri-metal construction makes possible more corrosion-resistance, greater fatigue strength, superior running surface.

On your next engine overhaul—specify the best—specify Monmouth Clevite 77 bearings—available at all N.A.P.A. jobbers.

Monmouth

ENGINE BEARINGS

CLEVITE SERVICE: Cleveland Graphite Bronze . Division of Clevite Corporation . Cleveland 3, Ohio

The words Monmouth,
Clevite and Micro are registered trade marks of Clevite Corporation

"On the expressway and in local traffic our Ford T-950 handles payloads up to 29 tons with unbelievable ease and averages over 4½ miles to the gallon"



says Morton Humphrey Detroit Terminal Mgr. Refined Syrups & Sugars, Inc. Yonkers, New York

"We use special spread-axle tank semi-trailers to supply liquid sugar for industry in Michigan, Ohio, Illinois and Indiana, and load right up to the legal limits. A rugged tractor with a big engine plus low curb weight is needed to make this kind of an operation profitable. Our recently acquired Ford T-950 fills this bill for us

better than anything else we've tried in the past.

"Our payloads with the semi-trailers pulled by this Ford tractor vary from 52,250 to 57,520 pounds depending on the operating area. In spite of these big loads the T-950 is averaging over 4½ miles per gallon. The drivers say they have never driven anything like this Ford—it accelerates on hills where we had to downshift with other tractors. One of our main reasons for trying Ford Trucks was to cut down on our original investment. We plan to standardize on Fords in this operation because, in addition to low initial cost, we found they're easier to service, too!"



FORD TRUCKS

One day in five...GAS FREE!

Mon. Tues. Wed. Sun. Thurs. Sat.

'59 FORD PICKUPS GIVE

25,2% MORE MPG!

A leading automotive research group proved that a '59 Ford Six Pickup will run five days on the same amount of gas the average competitive '59 pickup burns in four days.

The tests were made on 1959 sixcylinder %-ton pickups of the six leading makes purchased from dealers-just as you would. The trucks were tested in every kind of driving-high and low speeds, open highway and city streets, even simulated door-to-door delivery. And in every test '59 Ford Sixes delivered better mileage than any other make.

Here are the actual percentages:

'59 FORD PICKUP SIXES GAVE

42.6% better mileage than make "D"

31.1% better mileage than make "l"
25.2% better mileage than make "C"
22.0% better mileage than make "S"
9.6% better mileage than make "G"

What's the secret of Ford's economy? First, of all pickup sixes, only the Ford Six has modern Short Stroke design which reduces engine friction and thus requires less fuel.

Second, to this modern six-cylinder engine, Ford has added a new economy carburetor to meter fuel more precisely in

both high- and low-speed ranges.
Your Ford Dealer has the complete report of Economy Showdown U.S.A. See him and get the whole story firsthand.

All tests lucted and results

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AME AVAILABLE ON REQUEST

od inquiry to: P. O. Box 2587 Division, Ford Meter Compan

Go FORD WARD for savings



LESS TO OWN ... LESS TO RUN ... LAST LONGER, TOO!

Brighter Perspective on Transit Trends

Continued from Page 95

to me as director of the County's Department of Franchises. This department was set up in 1950. Its job is to coordinate, recommend, and issue franchises for bus operations in the county. Its basic policy is to maintain a healthy private

bus system which will provide the best possible service at the lowest possible fare.

One of the first

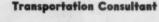
questions the department faced was that of the type and amount of franchise tax to be charged to bus companies. It was posed in 1950. In the two previous years bus companies in the county had suffered heavy net losses (totalling more than \$200,000 in each year) and needed higher fares or lower costs to stay in business.

The County's desire for continued bus service led it to set a token franchise charge of \$25 per bus per year. This was one of the first steps that I know of taken by any government body to reduce or keep taxes or franchise costs to a minimum.

At about the same time the department set out to get the communities in the county to drop their individual bus taxes. These taxes have now been virtually eliminated. The effect of this policy is shown in the "Expense" charts. Taxes on a cents-per-mile basis have stayed nearly level while other costs have gone up.

END

Please Resume Reading Page 96





In the early 16th century there was a lot in common between truck transportation and astrology. German wagoneers wouldn't think of starting on a journey unless the stars were exactly right. Since most "truckers" couldn't afford the services of a full time astrologer, a group of six or seven would band together and hire such an expert jointly. He not only advised them when and where loads should be carted, but also for whom. He was also consulted on matters such as increasing rates and lowering them. Most truckers wouldn't think of purchasing a new horse without first visiting an astrologer. Was this the beginning of our modern associations?





- He gets all the advantages of a rubber-covered hose—resistance to abrasion, mildew, weather, oil
 plus the time-saving assembly of a non-skive hose.
- What's more, he can assemble this hose with couplings he is now using for single wire cotton braid hose — also use the same couplings with Imperial Freon Hose for refrigerated trucks and air conditioned buses.
- With Imperial he can choose from a broad range of hose and coupling types and sizes.
- He uses Imperial's quick method of identification of couplings and hose.

Write for Catalog 3040

IMPERIAL SAWING VISE

provides easy way to saw wire braid hose with minimum wear as



Also from Imperials a complete line of male and female straight, angle and swivel adapter unions.

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THE IMPERIAL BRASS MFG. CO.
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6300 W. Hewerd St., Chicago 48, 111.
In Canada: 16 Hook Ave., Toronto, Ont.





The historic Court House in Green Bay, Wisconsin . . . and one of the 28 Philippa powered buses servicing this famous Great Lakes port.



The team that engineered the change to Philgas for Green Bay buses . . . Mr. F. O. Rathburn (left) and Mr. W. H. MacDonald.

Mr. Rathburn points to horizontally mounted bus engine. "Absence of oil dilution with Philgas is one reason for prolonged engine life," he says.



Philgas Power Reduces Operation and Maintenance Costs

Mr. W. H. MacDonald, Division Manager, and Mr. F. O. Rathburn, Automotive Adviser, of Wisconsin Public Service Corporation both agree: "Changing our Green Bay buses to Philgas has cut operation and maintenance costs... made the buses easier to drive and more pleasant to ride in."

Mr. Rathburn lists these savings in particular: a verified fuel saving of 1½ cents per mile . . . averaging 250,000 miles before engine overhaul instead of 80,000 miles . . . seven times more mileage before oil-filter change . . . double the spark plug life . . . an estimated muffler and tail-pipe life of five years instead of eight months.

"Of course," Mr. Rathburn adds, "Philgas completely solved the problem of fumes and odor, both inside the bus and in the street. Drivers also like the increased and smoother power that Philgas delivers." Mr. Rathburn is especially pleased with the reduced maintenance costs. All maintenance and service (everything including cleaning, chassis repair, etc.) has been reduced from 32 to 28 manhours per 1000 miles. He concludes: "We had one engine that went 367,000 miles before overhaul . . while some main and connecting rod bearings have gone over 700,000 miles before being replaced. That kind of engine performance is hard to beat for economy of labor and parts."

For complete details on the efficiency and economy of operating truck and bus fleets on Philgas...write or phone today.

*Philgas is the Phillips Petroleum Company trademark for its high quality LP-Gas (propane, butane).



PHILLIPS PETROLEUM COMPANY

SALES DEPARTMENT, Bartlesville, Oklahoma

SALES OFFICES:

Amarillo, Tex., First Nat'l Bank Bidg. • Atlanta, Ga., 1428 West Peachtree St., Station "C" P.O. Box 7313 • Chicago, Ill., 7 South Dearborn St. • Denver, Colo., 1375 Kearney St. • Des Moines, Iowa, 6th floor, Hubbell Bidg. • Houston, Tex., 6910 Fannin St. • Indianapolis, Ind., 3839 Meadows Drive • Kansas City, Moo., 201 E. Armour Bird. • Minopeapolis, Minn., 215 South 11th St. • New York, N. Y., 80 Broadway • Omaha, Neb., 3212 Dodge Street • Raleigh, N. C., 401 Oberlin Road. • Salt Lake City, Utah, 68 South Main • St. Louis, Mo., 4251 Lindell Bivd. • Tampa, Fla., 3737 Neptune St. • Tulsa, Okla., 1708 Utica Square • Wichita, Kan., 501 KFH Building

Hold Down Costs with "Standards"

Continued from Page 101

matter to check each vehicle's current record to spot "out-of-line" performance. Willett uses them for more than that, however. Here's how it gets the most from them:

Each month, the

budget department tabulates the total actual costs generated by each vehicle in the fleet. The tabulation also compares the month's total costs for each of Willett's six

ENSIGN

LP-GAS

Insist on

garages. A similar comparison is made of the total costs produced by all the vehicles assigned to each rental or lessing customer.

Detailed analysis of this data is made initially by the two superintendents in charge of the six garages. Basically, they look for discrepancies between actual and standard costs—first in the garage totals and then in the totals covering the groups of vehicles serviced at that garage.

If there are any discrepancies, the superintendent checks the individual record cards on the vehicles involved. These give a monthly breakdown of the actual costs for each vehicle in the fleet. By comparing these figures against the established labor, parts, and fuel standards, he can usually get an idea of where the trouble is. Then, by checking the shop service records, he can pin the villain down exactly.

Here is a typical

example, showing the system in operation. A few months ago, a superintendent noted that costs at one of his garages were two per cent above standard.

From here he quickly traced the discrepancy to a fleet of 10 small trucks operated by one of Willett's bakery accounts. Then by checking out the record cards on these vehicles, the superintndent discovered that labor and parts costs on one were above standard.

He checked the

shop service record on this vehiccle and learned that it had received a new clutch after the old one had operated only 15,000 miles. The superintendent knew from past experience that clutches on this equipment lasted at least 25,000 miles. Here was the source of the trouble—a clutch that had failed 10,000 miles before its time.

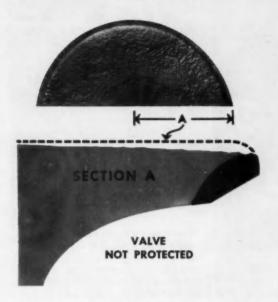
The superintendent reported the information to maintenance Director A. Walter Neumann. Since the cause of premature clutch failure usually lays with the driver of the vehicle rather than with the maintenance crew or manufacturer, Neumann contacted Willett's operating department.

It, in turn, called the user of the (TURN TO PAGE 130, PLEASE)



CHRONICOTE

A New Low-Cost Corrosion-Resistant Valve Head Coating that Eliminates Deposit-induced Preignition





CHRONICOTE is a newly developed Eaton process of applying a chrome-nickel alloy to heavy-duty valve heads. At reasonable cost, it provides a degree of protection against preignition and corrosion heretofore accomplished only by means of much more costly methods.

We will be glad to furnish your engineers with technical reports covering life comparisons between CHRONICOTE and unprotected valves. We believe you will agree that Eaton CHRONICOTE Valves provide the long-sought solution to the problems of rapid corrosion and deposit-induced preignition. Write, wire or phone.



CHRÖNICŌTE

Means Extra Thousands
of Trouble-Free Miles!

EATON

MANUFACTURING COMPANY
BATTLE CREEK, MICHIGAN

PRODUCTS: Engine Valves * Tappets * Hydraulic Valve Lifters * Valve Seat Inserts * Gears * Hydraulic Pumps
Truck and Trailer Axles * Truck Transmissions * Permanent Mold Iron Castings * Automotive Heaters and Air Conditioners
Fastening Devices * Cold Drawn Steel * Stampings * Forgings * Leaf and Coil Springs * Dynamatic Drives and Brakes
Powdered Metal Parts * Variable Speed Drives * Speed Reducers * Differentials * Centralized Lubrication Systems

Don't let your profits skid ...

CAMPBELL CHAINS



Keep your fleet rolling safely and profitably!

Choose the CAMPBELL TIRE CHAIN that's right for your trucks and service:

Lug-Reinforced for maximum traction and wear; Mud Service for off-the-road; Highway Service for general use.

Before the snow flies, get ready to keep your fleet rolling! Ask your jobber for information on Campbell Tire Chains. Or write direct, if you prefer.

You are assured the best delivery and service from the Campbell nationwide network of warehouses and factories.



SAFETY MEANS PROFITS FOR YOU!

Look at the results of Truck Tests by the Committee on Winter Driving Hazards of the National Safety Council:

Average Braking Distances

REGULAR TIRES—NO CHAINS

4 UNIT CHAINS—OUTER TIRE ONLY 160

SINGLE REGULAR CHAINS— 130

FGIHAR DUAL TRIPLE SIDE

CHAIN-BOTH TIRES

ES ONLY

CHAIN-BOTH TIRES

Draw Ber Pull in Pounds on Lake Ice

1250 2 UNIT CHAIRS—BUTER

1370 SINGLE REGULAR CHAIN

OUTER THE CHLY

2050 CHAIN BOTH TIRES

2180 SHIGHE REINFORCES

REINFORCED DUAL TRIPLE SIDE CHAIN-BOTH TIRES 3240

CAMPBELL CHAIN Company

FACTORIES: York, Pa.; West Burlington, Iowa; Alvarado, Colif.
WAREHOUSES: E. Cambridge, Mass.; Chicago, Ill.; Portland, Ore.;
Seattle, Wash.; Los Angeles, Calif.



Hold Down Costs

Continued from Page 128

vehicle, and learned that during the month in question a new man had been operating the truck. Willett sent one of its instructors out to give the new man a few tips on the finer points of his job—particularly proper clutch operation.

The end of the

story came several months later, when the truck had another new clutch installed. "This time, however," says Neumann, "the one we pulled had lasted a proper amount of time—25.000 miles."

Not every case is quite so involved. Often a discrepancy between actual and standard costs is due either to a defective part, improper installation or service.

By checking shop labor and service records on the vehicle, "we can usually find out exactly what the reason is," Neumann explains. "The important point, though, is that without the cost comparison, many of these problems probably would slip by either because we wouldn't be alerted to their existence or wouldn't be able to track them down quickly enough."

Besides providing a

sensitive tool for detecting increases in maintenance cost, Willett's control system also helps in planning future operations. Here, the standards are used in conjunction with the semi-annual forecast which shows how much business is expected during the ensuing six months.

From this forecast, officials determine how many vehicles will be needed. Then they multiply by the pertinent standard costs, and come up with a six-month estimate, broken down by month and vehicle type, showing what the total maintenance bill should be.

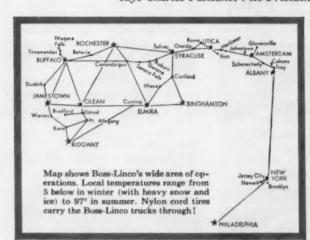
One indication of the accuracy of this calculation: In the seven years it has been made, actual costs have never been more than one per cent above or below the estimates.

(TURN TO PAGE 132, PLEASE)



"We reduced road delays and cut costs... when we switched to nylon cord tires"

says Charles Palisano, Vice President, Boss-Linco Lines, Buffalo, N.Y.



"OUR RECORDS PROVE conclusively that we get better service at lower cost per mile with nylon. That's why 90% of our tires are nylon cord. Nylon has virtually eliminated blowouts due to tire cord failure... and drastically cut down our road delays. And the increased mileage we've gotten with nylon has enabled us to absorb rising tire prices without increasing tire costs!

"At Boss-Linco, we have 473 trucks, tractors and trailers traveling all over New York State, 95% of them meeting deadlines for city deliveries. We keep detailed records on every piece of equipment we use. And we buy tires on the basis of performance and cost per mile."

PROVE TO YOURSELF that the advantages of nylon cord tires add up to big savings under any road and load conditions. Ask your dealer about nylon cords today. Nylon cord tires are available from all tire makers.

THE SAFEST, STRONGEST TIRES ARE MADE WITH

NYLON

Du Pont nylon for tire cord



BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

Hold Down Costs . . .

Continued from Page 130

By knowing what maintenance costs will be up to six months ahead of time, Willett officials can make a number of key decisions with little or no guesstimating. For example, they can decide how many vehicles to

buy or sell, and whether to expand or contract parts inventories, thus avoiding an unnecessarily large tie-up of capital. They can also decide whether the size of the shop crew has to be adjusted.

This latter decision is particularly important. A mechanic's time can't be saved from one month to another. If he's on the payroll, he gets a check whether there's sufficient work for him or not. Unless the fleet operator can determine ahead of time how many man-hours of shop time there will be, he runs the risk of being under- or over-manned.

Still another area

where Willett's cost control system pays dividends is in evaluation of vehicles, equipment and methods. "We're constantly comparing different makes of trucks and buses against each other to determine which gives the best performance at the lowest possible cost," explains Neumann. "Our basic objective is to weed out the high-cost units, tighten our standards, and thus cut our overall maintenance bill."

Each month, all of Willett's department heads get together with Howard Willett, Jr., president of the firm, to discuss how the company is doing. The maintenance cost picture is among the items discussed. If the budget department's records, based on its comparison of actual vs. standard costs for the fleet as a whole, show one or more areas where expenses are higher than they should be, those attending the meeting talk over ways of restoring the balance.

This top level

approach pays big dividends. The imbalance isn't necessarily the maintenance superintendent's responsibility. The answer may be better shop recruitment, retirement of expensive equipment, renegotiation of a rate with a customer, or alteration in driver training procedures.

Another use for the standards is in the fleet's budget bonus plan. Under this plan, if a shop foreman manages to maintain his equipment in any given month for less than the amount allowed by the standard, he gets five per cent of the money saved.

END

Please Resume Reading Page 102

003

Steno May: "I'm wearing my old undies and saving my new ones."

Steno Fay: "What for a rainy day?"

Steno May: "No-a windy day."



Fleet operators were asked for their views on engine governors. Here are some of their remarks.



"Governors save on maintenance and fuel."

"Protects the driver, also the vehicle."





 "Drivers run the engine too fast in lower gear without governor control."

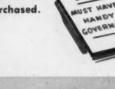
e "Couldn't stay in business without them."





"We would not do without governors."

 Fleets that have had experience with governors specify them on any new vehicles to be purchased.





Investigate the moneysaving advantages Handy Governors provide.

KING-SEELEY CORPORATION

ANN ARBOR, MICHIGAN



All valves are not alike

● Take Allied "bi-metal" valves for instance. In most engines, only a valve made of two metals could withstand so well the heat and temperature a head must take . . . and the terrific pounding the head must endure. For these applications, no one steel can do the job. Add

the fact that Allied also gives full coverage in Stellite-faced valves, sodium-filled valves and both types of roto mechanisms wherever required, and you'll see why Allied can serve you so well. Better see your N·A·P·A Jobber now about Allied.

RELY ON ALLIED FOR COMPLETE VALVE TRAIN SERVICE



VALVE GUIDES



VALVE SPRINGS



VALVE LOCKS



VALVE SEAT INSERTS





ALLIED AUTOMOTIVE PARTS COMPANY INDIANAPOLIS 7, IND.

SPICER 12-SPEED 4,000,000



TRANSMISSIONS PASS MILE TEST!

T. J. Carter, Vice President of Fleet, and Chas. S. Willis, Superintendent of Maintenance, examine the pilot model Spicer 12-Speed Transmission. This unit now has over 250,000 miles of perfect performance behind it. Interstate Motor Lines disassembled the pilot model at 71,000 miles for inspection of bearings and synchronizing units. Only minor adjustments to air controls were needed.



Interstate Motor Lines, highway transportation pioneer headquartered in Salt Lake City, has logged well over 4,000,000 maintenance-free miles on 53 Spicer 12-Speed Transmissions. Model 8125.

IML is routed in the West—and blazes highway haulage trails over and through the Rockies, the Sierra Nevadas and the Wasatch Mountains. High-altitude wintry blasts and the fierce heat of salt-flat deserts have taken turns proving that Spicer 12-Speeds will operate trouble-free under the worst conditions.

T. J. Carter, IML Vice President of Fleet, says, "We specify Spicer 12-Speed Transmissions because of their light weight, short overall length, high torque capacity and low maintenance cost."

Write to Dana Corporation for complete information on Spicer 12-Speed Transmissions. Ask for the booklet that tells how to shorten your wheelbase by a foot, increase payload by 200 pounds, eliminate the auxiliary transmission and two-speed axle.





DANA

Toledo 1, Ohio

SERVING TRANSPORTATION — Transmissions • Auxiliaries • Universal Joints • Clutches • Propeller Shafts
Power Take-Offs • Torque Converters • Axles • Powr-Lok Differentials • Gear Boxes • Frames
Many of these products are manufactured in Canada by Hayes Steel Products Limited, Merritton, Ontario



- TENSION TYPE FASTENER
- FEATHERWEIGHT TYPE FASTENER
- BROAD GRIP TOLERANCE FASTEMER
- BROAD BEARING FASTENER

- POSITIVE MECHANICAL LOCK
- UNSKILLED, ONE-MAN APPLICATION
- HIGH SHEAR & TENSILE STRENGTH
- NO LOOSENING OR STRIPPING
- NO LOOSENING BY OVERDRIVING

Huckbolt fasteners have effected savings of as much as 70% over previously used

These versatile, efficient fasteners are available in diameters, grips, headstyles and metals to suit your needs.

Lightweight, sturdy, easy-operating Huck power or hand tools install these fasteners with absolute uniformity at rates up to sixty per minute by one unskilled operator. Let Huck's experienced fastener engineers help you with your fastening problem.

*T.M. of Huck Manufacturing Company



MANUFACTURING COMPANY

2480 BELLEVUE AVENUE . DETROIT 7, MICHIGAN . Phone WAlnut 3-4500

White Trucks

Continued from Page 116

steel, heat-treated for strength with local third channel for some applications. Tubular cross members are alloy cast steel Other features are malleable iron frame brackets and all-bolted construction.

The new construction

trucks are built with simplified radiator and fender assembly. Radiator core can be removed quickly by unbolting the front grille and without removing the radiator shell. The bumper and a front fender can be removed in five minutes so a mechanic can stand between an outturned front wheel and the engine compartment for work under the

Wider-tread front axle (which aids this easy access to the engine) permits shorter turning radius. And with the short dimension from center-line of the front axle to the back of cab, it allows more chassis and payload weight to be shifted from rear to front axle.

Tandem rear axles are available in single reduction, double reduction hypoid and double reduction planetary differentials with applicable axle ratios and choice of suspension.

The White 145

gasoline engine, developing 145 hp at 3200 rpm and 270 lb ft torque at 1600 rpm, is standard on the Model No. 2064. Standard wheelbase on this model is 150 in. with 85%-in. CA dimension. Optional wheelbases are available in 5-in, intervals up to 190 in. and 125%-in. CA dimension. Conventional cab measures 102 in. BBC (front-of-bumper-to-back-ofcab).

The Model No. 4264 is available with "Mustang" 450A, 462A, 470A, and 490A gasoline engine options, providing a horsepower range from 145 at 3000 rpm to 215 at 2900 rpm. Torque range is from 328 lb ft at 1400 rpm to 440 at 1200. Wheelbase range is from 158 in. with CA dimension of 84 in. to 224 in. with 150-in. CA dimension. BBC dimension is 1081/2 in.

Standard engine in the Model No. (TURN TO PAGE 140, PLEASE)

Gates Tandematic Drive increases tire life 35%







PIC Walsh Freight Co., St. Louis, Missouri

"Gates Tandematic Drive not only increased our tire life 35%," says Dave Blumofl, "but it has made it easier to keep our trucks operating during bad weather. Now, we definitely wouldn't operate in the winter without Tandematic Drive.

"Our drivers are well satisfied with it, too, and we find that Tandematic Drive increases traction considerably.

"Gates Tandematic is simple, economical and

safe to install. It also helps us keep faster schedules the year around, makes steering easier, gives more positive braking power for greater safety and it gives a smoother ride by reducing road shock and wheel hop.

"Tandematic Drive saves us money by giving longer life to bushings and bearings because of its shock absorbing qualities."

Gates Tandematic Drive gives you BOTH...

Specially hardened Red Groove Pulley

Has more than 3 times greater life than ordinary pulleys. (Gates Red Grooves have a hardness rating from 430 to more than 600 on the Brinell hardness scale.)

Roll-on feature (Pat. Pend.) Split construction permits pulley groove to be offset, so belt can be rolled on at high tension easily and safely.

Self-cleaning. Open design insures peak operating efficiency at all times.

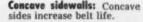
Rib-Top V-Belt

Protective ribbed top: Resists sandblast effects from wheels.

Flex-Weave cover: Protects vital core of belt.

Concave sidewalls: Concave

Special tensile cord construction: Greater resilience of Gates tougher tensile cords enables belt to absorb shocks and carry extra heavy loads.



The Gates Rubber Company . Denver, Colorado

Gates Rubber of Canada Ltd., Brantford, Ontario



World's Largest Maker of V-Belts

Gates Tandematic Drive



Interstate operates 205 Mack diesels

More proof of

Interstate Motor Freight System, Grand Rapids, Michigan, is now operating 205 Mack Thermodyne® diesel tractors on its various routes... another indication of the growing preference among the nation's leading haulers for Mack economy and dependability.

The Mack Thermodyne is the one diesel engine that has proved its ability to stand up to heavy-duty service and continue to provide the top fuel and maintenance economies that have helped make Mack No. 1 in diesel truck sales for six straight years.

The ability of a Mack to perform dependably and economically, maintaining tight over-the-road schedules, stems from another Mack exclusive—Balanced Design. This is the Mack engineering concept that calls for the design and manufacture of every major component to work in harmony with every other component for maximum over-all efficiency.

Ready to roll—at a moment's notice. Here you see several Mack B-67's about to start on a scheduled run. Mack offers a wide selection of tractors engineered for different hauling requirements. These compact, thrifty 89" BBC units enable Interstate to use high-cube trailers of 35' or 40' length within the 45' or 50' over-all legal limitation. You can also choose from three Mack COE tractor models with BBC dimensions as short as 51" and a wide variety of front axle locations for most advantageous axle loadings.





Starting point for one of Mack's matchless economies. Mack offers fleet owners—and individual truckers—greater earning power through lower fuel consumption. Even in heavy city traffic, husky Macks deliver top miles per gallon.

Mack acceptance

Balanced Design results in a truck that, year after year, helps long-distance truckers—and short haulers, as well—to cut costs to the bone.

Investigate the use of Macks in your fleet. You'll find in the Mack model that best fits your needs all the advantages of low maintenance costs, top fuel economy, maximum availability and on-the-road dependability. Check your local Mack branch or distributor, then ask yourself if you can afford NOT to own Macks. Mack Trucks, Inc., Plainfield, New Jersey. In Canada: Mack Trucks of Canada, Ltd., Toronto, Ontario.

MACK
FIRST NAME FOR
TRUCKS



White Trucks

Continued from Page 136

9064 is the "Mustang" 450A gasoline with the same options as the 4264. Wheelbase range is 158 to 186 in. CA ranges from 96 to 124 in. The unit measures 62 in. from centerline-of-front-axle-to-back-of-cab and 90 in. BRC.

The Model No. 4464D

utilizes the White's 72A diesel (NH180) with 180 hp at 2100 rpm developing 504 lb ft torque at 1525 rpm as the standard engine. White's 70A diesel (NH220) with 220 hp at 2100 rpm and 606 lb ft torque at 1600 rpm, and the 69A diesel (HRFB) with 190 hp at 2000 rpm and 580 lb ft torque at 1300 rpm are optional. Wheelbase range of the 4464D is from 176 in. with 102-in. CA dimension to 224 in. with 150-in. CA dimension.

Standard transmission is 5-speed main with 3-speed auxiliary. Optional 5-speed transmissions and auxiliaries are available.

Depending upon the

application, the new trucks offer four different frame combinations. Sizes varying with outer channel height from 10\(^3\)\(^6\) to 10\(^5\)\(^6\) in. Of heat-treated alloy steel, White says they have a resisting bending moment strength ability from 1,483,-000 in. Ib to 2.159.000 in. Ib.

For power take-off applications, all models have adequate capacity for front engine drive, SAE side mount, extended counter loft, or mid-ship auxiliary and power tower installation.

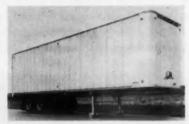
Other design features include . . .

- Pivot-point front end design. Radiator, fenders and their assemblies are supported in a U-shaped channel structure and anchored to a rubber-cushioned center support on the front cross-member and are unaffected by frame-twist or road shock.
- Standard cast spoke-type wheels, with disc-type wheels optional.
- Semielliptic springs front and rear with capacities varying according to axles used.
- Twelve-volt lighting and starting on gasoline-powered trucks, 24volt starting and 12-volt lighting on the 4464D diesel.

END

Please Resume Reading Page 118

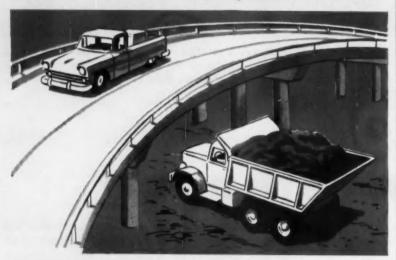
Super Econovan



Here is Highway Trailer Company's new dry freight trailer. Called the Super Econovan, it features all-aluminum construction and both wider and higher inside dimensions. The new chassis is aluminum. Interior width is 94 in. Height is 97 in. Flooring is extruded aluminum with a 6-in. wood nailing strip full length on each side. It is available in 35 through 40 ft models.

There's a Kendall Lubricant for

EVERY FLEET REQUIREMENT



TAKE GEAR LUBES,

for example...

KENDALL THREE STAR is the only all weather, all-purpose gear lube that meets requirements of SAE Grades 80, 90 and 140 in a single product. Simplifies inventory and lubrication.

formulated to protect hypoid gears at high speeds under heavy loads; and Kendall NS-MP Hypoid Gear Lube, Kendall Tractor Gear Lubes and Kendall Open Gear Lubes.

All can cut down-time by providing extra wear protection. Contact your Kendall Distributor or the Refinery for details.

KENDALL REFINING COMPANY

Bradford, Penna.

Lubrication Specialists since 1881





Streamline your service operations with Weaver Lo-Hi-Draulic Jacks. They are geared to the faster, more exacting pace of modern service operations. You can count on them to slash job time and boost job profits.

Models WA-66 (181/4" lift) and WA-67 (20" lift) have quick removable 2 piece handles. The light weight of these models make them ideally suited to carry in road service trucks for away-from-shop servicing of cars. Both models are equipped with built-in safety valve to prevent overloading of jack beyond rated capacity.

In addition, Weaver has the WA-72, WA-73 and WA-75 (each have 24" lift). All three are similar and operate alike, varying only in size and capacity rating. The long, low chassis simpli-

fies spotting under modern cars with extreme overhang. Jack rolls under the lowest axle, even with tire flat, and lifts high enough to permit easy removal of wheel despite extremely low fender line. Safety valves prevent overloading. Removable, spring balanced handle operates on any phase of stroke . . . stays in vertical position when not in use. Safety latch prevents accidental lowering of load.

For those shops doing heavy duty servicing, Weaver has the 20 ton Model WA-85. This jack lifts to a high of $25\frac{1}{2}$ " and the long low-slung frame with triple from wheels reaches under extreme overhangs. For details on these and other jacks in the complete Weaver line, consult your jobber or write us.



WEAVER MANUFACTURING CO., SPRINGFIELD, ILL., U.S.A.

SERVICE SHOP EQUIPMENT

GMC V-6's Are Compact

Continued from Page 114

at 1300 rpm, 275 bhp at 2400 rpm.

• Compression ratio, except on the 305-cu in. engine, is expected to be around 7.5-7.75 to 1"

Interesting advantage of the larger engines in the new series, says GMC, is that "the reserve

power permits use of a 5-speed transmission with a single-speed axle instead of the usual eight or 10-speed transmission."

Engines have a

60-deg V. are of "oversquare"

(larger bore than stroke) design. Stroke for all engines is the same —3.58 in. The 305 engine has a 4.25-in. bore, the 351 and the 702 V-12 a 4.56-in. bore and the 401 a 4.88-in. bore.

On the question of balance, Geschelin says, "GMC investigated thoroughly, found that secondary unbalance effects, which occur at twice engine speed, are negligible and can be ignored.

"This was confirmed by actual testing. Gross effect of vertical and horizontal components of such imbalance resulted in a displacement of only 0.002 in. at either end of the engine."

New engines offer

plenty of parts interchangeability. Over 50 parts are common over the entire line . . . 70 if you don't include the V-12.

Since they have the same stroke, con rods and bearings are fully interchangeable. By the same token, crankshaft machining is simplified since all have a common throw.

Crankshaft in the 305 is cast "Armasteel." In the other engines, they are forged, chrome alloy steel with Tocco-hardened journals. As a measure of comparative strength, crankshaft on the 401 weighs about 110 lb as compared with 63 lb in a comparative V-8.

On 6-cyl engines,

crankshafts have four main bearings and six separate con rod journals evenly spaced at 60-deg intervals around the circumference. The "Twin Six" V-12 has seven main bearings and six con rod journals spaced at 120-deg intervals around the shaft circumference.

Main bearing caps and their fastenings are interchangeable on

(TURN TO PAGE 144, PLEASE)





Walter Ware, president and general manager, Tru-Mix Concrete, Inc., Portland, Oregon

FLEET OWNER REPORTS...

"NEW UNION 7600 GASOLINE IS MAKING MONEY FOR US"

"Our records prove New Union 7600 Gasoline is making money for us-

"Better performance is the unanimous opinion of our drivers. New 7600 Gasoline is giving better-than-ever performance throughout our fleet of Internationals and Diamond Ts. Greater power in every gear, fewer downshifts, mean more trips per unit per day.

"Increased mileage was noted immediately after we switched to New 7600. Fuel consumption dropped significantly when engine ignition was advanced to take advantage of its higher octane rating.

"Reduced maintenance costs are immediately apparent, too. Our shop superintendent reports New 7600 is cleanerburning. Carbon deposits in the combustion chamber, and replacements of fouled plugs are the lowest in our 12-year operational records."

As Walter Ware and other Western truck fleet operators have discovered — Union's New 7600 Gasoline is powered like a premium but priced like a regular.

New 7600 has the highest octane rating of any regular in the West...high enough to give knock-free performance to 4 out of 5 vehicles on the road.

And more: New 7600 contains Union's exclusive additive NR76 to keep carburetors cleaner, free from gum.

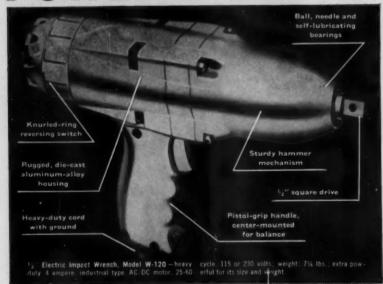
New 7600 is now available generally in the West. Contact your Union Oil representative for immediate delivery.

UNION OIL COMPANY OF CALIFORNIA



UNION OIL CENTER, LOS ANGELES 17, CALIFORNIA, U.S.A.

POWER to boost job efficiency with REMINGTON tools





Non-reversible screwdriver, Model 1438—Capacity: No.10 wood screws; adjustable slip clutch; precision ball bearings; motor: 1.7 emp., 115 or 230 volts; locking trigger switch.

Powerful, rugged, easy-tohandle Remington Power Tools help you boost output and ease the tough jobs. They're precision-built for long service and minimum maintenance. Your Remington Distributor stocks and services the industry's widest selection of quality power tools and parts.



Reversible screwdriver, Model 143SR — Switch reverses rotation; adjustable clutch for preset tension; rating same as 143S; uses a wide range of finders, bits, attachments.



36" Electric drill, Medel 381 — Compact design with all-purpose speed and rugged power; 800 rpm; 2.5 emps; precision Ball Bearings throughout; goared chuck and key.



Electric bench grinder, Model BG-1 -115-volt, ¼-hp AC moter, dynamically balanced, totally enclosed; wheel size: 6" x ¾"; sealed bearings; drilled for bench mounting.



Polisher, Medel 57P — Capacity 9" bonnet; free speed: 1400 rpm; load speed: 840 rpm; 7.0 amps, AC/DC motor; 115 or 230 volts; heavy-duty precision ball bearings; wt., 19 lbs

CHOOSE THE POWER MOST EFFICIENT FOR YOU. REMINGTON POWER TOOLS ARE AVAILABLE IN AIR - ELECTRIC - GASOLINE AND POWDER ACTUATED MODELS

Remington

IN CANADA: Remington Arms of Canada Limited, 36 Queen Elizabeth Blvd., Taranto, Ont.



٠	FREE	POWER	TOOL	CATALOGS	
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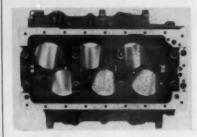
		ompany, Inc., Bridge stion—catalogs on Ren		k Industrial T	ools checked below	CC-1
☐ Electric Tools	☐ Air Tools	☐ Flexible Shaft Machines	☐ Concrete Vibrators	☐ Chain Saws	☐ Stud Drivers	
Name			Posit	ion		
Сотрану						
Address						
City				Zone	State	

GMC V-6's Are Compact

Continued from Page 142

all engines in the line. Identical I-beam design, drop-forged, heat-treated, carbon steel connecting rods are used for the complete line.

Fine grain, nickel-chromium alloy, cast iron cylinder blocks have 3-in. drop skirts for added



strength. Heads are cast of the same material for strength, hardness and control of warpage and distortion. One style head is used on the 305, another takes care of the rest of the line.

Pistons are

heavy-duty aluminum castings with a steel expansion control hand cast integrally for close piston fit. Surfaces are of cam ground, tin plated design to carry adequate oil for proper lubrication and prevent scuffing.

All pistons, except in the 305 engine, have a steel insert in the top ring groove to reduce wear and ring sticking. Insert also gives more uniform expansion to provide better sealing. Four split-type rings are carried . . . three compression and one oil control.

Three types of camshaft drive are used. Silent link chain is used on the 305A, roller chain on the 305B, 305C and 351, gear drive on the 401 and 702 V-12.

Mechanical valve

lifters are employed on 6-cyl models . . . with self-adjusting hydraulic lifters on the V-12. All are rotated by a slight turning movement created by their offset location in respect to the camshaft lobes.

Scuffing is controlled in two (TURN TO PAGE 146, PLEASE)

YOUR RIGS ARE LINED UP FOR THIS RACE, TOO!

Fleets with consistent winning records back their vehicles with WIX Prescription Filtration. Or, you can turn that thought around and say, "WIX Prescription Filtration can help put your fleet in the winning column with WIX-PAX service." Either way you say it—you're the winner.

WIX Oil Filter and Air Filter Cartridges feature top quality and premium performance—keep engine insides C-L-E-A-N...free from abrasive dust, dirt, grit or sludge. They save wear! They save repairs! They save DOWN TIME! These triple savings mean more pay load—less maintenance...more income—less outgo...more value—less depreciation. Yes, WIX is for you.

wix-pax

Ask your jobber about WIX-PAX Service—and how it can save you money. WIX-PAX features top quality WIX Oil and Air Filter Cartridges and only top quality! WIX-PAX also brings you FREE—the WIX Fleet Manual and maintenance record. AND—the WIX FREE Fleet Survey that identifies every filter on each vehicle and the right cartridge for each filter!

Write — get all the facts about WIX Prescription Filtration and the moneysaving features for you!

WIX CORPORATION GASTONIA, N. C.

In Canada: Wix Corporation Ltd., Toronto

GMCV-6's Are Compact

Continued from Page 144

ways — with a "Parker-Lubrite" coating on both the cam and lifter foot surfaces and by a depression in the block casting under each of the cam lobes. When the engine is stopped, lubricant drains into the cavity. When it's started, cam surfaces are lubricated immediately

with the oil in the cavity . . . until normal lubrication takes over.

Valve lifters and tappets can be inspected and serviced by taking off the rocker arm cover and removing them through large access holes in the cylinder head. Valve guides are drilled directly in the head, eliminating removable valve guides and giving faster heat transfer.

Exhaust valves in the 351, 401 and "Twin Six" 702 engines are

sodium-cooled and hard-faced with replaceable inserts.

Combustion chambers

are partly in the head, partly in the piston. Advantages claimed are reduced fuel octane requirement, rapid burning of the fuel-air mixture during early part of the power stroke, freer breathing.

Intake ports are on the high side of the head. Exhaust ports are located on the outside to minimize heat rejection to the engines and localized hot spots.

Intake manifold is preheated for faster warm-up by exhaust gases pulsating between one head to the other through a passage cast in the bottom of the manifold.

Spark plugs are

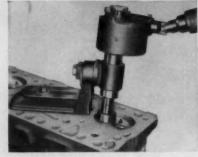
located on the intake manifold side. This gives accessibility, cooler operation and reduces knocking tendencies.

By-pass cooling system circulates coolant at a rate of 120-200 gpm through the cylinder head, about half that rate through the radiator. It goes first through the block, then through transfer holes in the back of the block to the head.

Rotor-type oil pump supplies oil at 60 psi at a rate of 14 gpm on the V-6's and 17 gpm on the V-12. Full-flow oil filter with paper-type throw-away element is used in all the engines. By-pass valve allows

(TURN TO PAGE 150, PLEASE)

MONEY make more of it



with a



3 reasons why Kwik-Way makes you more money

1, IT'S FASTER — With Kwik-Way's Valve Seat Insert Tool you can do the average counterboring operation in 2 to 3 minutes after tool is set up. Power driven from any 3/8" or larger electric drill.

2. IT'S MORE ACCURATE — Rigid base casting is located for alignment with Kwik-Way Tapered Arbor centered in valve guide. Rigidity is maintained by base. Tapered arbor shank provides proper bearing surface for two-blade cutter. Op-

posing blades equalize cutting strain — ensure greatest accuracy.

3. IT'S EASY TO OPERATE — Tool is simple to set up. Automatic stop disengages feed mechanism when proper depth has been reached. Base casting has swivel which pivots in all planes to assure proper alignment.

Let us demonstrate the Kwik-Way Valve Seat Insert Tool in your own shop on an actual job. There's no obligation. Mail the coupon today.

CEDAR RAPIDS ENGINEERING CO. 912—17th St., M.E. Geder Rapids, Iowa Gentlemen: Please arrange a demonstration, without obligation, of the Kwik-Way Valve Seat Insert Tool. Send me further information and literature. Name Firm Name Address City State

Tea for Two?



Garage Superintendent Floyd Weaver checks new trailer for the National Tea Company. The new unit is a 38-ft Brown insulated trailer fitted with three inches of glass fiber all around. Two curbside doors permit cargo unloading on the street. Each rear door locks separately to allow opening of either half of the trailer.

NEW MILEAGE RECORD-BREAKER!



Fleets report the new Cross-Lug U. S. Royal Fleetmaster Dual-Purpose-Nylon <u>outwears</u> all in rugged highway service!

Right across the country, users say this great tire is establishing all kinds of new records for highway mileage. U. S. Royal built it to do just that. 60% deeper tread, of new "Maximum Mileage" compound, substantially increases wear, reduces per-mile tire costs. Big deep cross-lugs deliver 35%

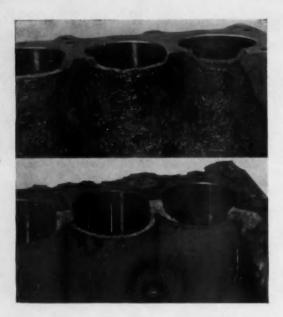
more pull-power. Double-Strength Nylon cord defies impact blowouts. Test a set of these new U. S. Royal Dual-Purpose-Nylon Tires, in tubed or advanced tubeless construction: Call your U. S. Royal Dealer now. And make sure to specify "U. S. Royal" on the next new equipment you buy!

U.S. ROYAL TRUCK TIRES



United States Rubber

HERE'S HOW YOU CUT WHEN YOU USE A



Prevent costly rust clogging!

These unretouched photographs of cutaway sections of actual engine blocks show why your costly equipment is safest when you winterize with "Zerex" antifreeze with MR-8, Du Pont's special chemical rust inhibitor.

The engine block at top did not have MR-8 chemical protection. Note how rust has built up, clogging narrow passages and thus blocking the maximum circulation of coolant. This could result in overheating and costly engine damage.

Rust and corrosion were prevented in the engine block at bottom because it had the chemical protection of MR-8. Narrow passages remain free of rust and corrosion—no danger of overheating here.

Du Pont "Zerex" with MR-8 contains no oil, so it cannot rot rubber hose. It protects all seven metals found in today's automotive cooling system, and it works in all waters—hard or soft.



Cut expenses by pre-mixing!

Both "Zerex" and "Zerone" will mix completely in water, and the special chemical rust inhibitor will not separate from the solution while standing. This permits you to pre-mix your anti-freeze with water to any degree of protection desired for use as original fill or make-up when and where you need it. Stock it in any convenient place. It will keep indefinitely—always ready for use.

When anti-freeze is pre-mixed, installations can be made rapidly by unskilled help and without the need for individual time-consuming hydrometer checks. What's more, guesswork and the chance of costly overprotection are avoided and pilferage problems are minimized.

Take advantage of the total savings possible when you pre-mix with Du Pont "Zerex" or "Zerone"—the quality anti-freezes that can be pre-mixed with water to stay!

OPERATING COSTS DU PONT ANTI-FREEZE



Save with the right size!

To permit you to order most economically the quantity of Du Pont "Zerex" or "Zerone" that your particular needs require, you can choose from 54-gallon drums, gallon and quart containers.

Where a larger quantity of "Zerex" or "Zerone" is needed, the 54-gallon drum saves money and makes both ordering and storing a simple matter. Drums make convenient containers in which to pre-mix your anti-freeze with water to the degree of protection desired.

Whether you buy drums, gallons or quarts, you always get the same high-quality protection that has long been associated with these leading Du Pont anti-freezes.

Why gamble with damaging freeze-ups or rustups when the finest cooling system protection is available? Choose Du Pont "Zerex" or "Zerone" for safely winterizing your valuable equipment!



Your best anti-freeze buy!

Note to maintenance supervisors and antifreeze buyers: The use of a quality, efficient antifreeze makes sound business sense when you consider the value of the equipment you use—equipment that your anti-freeze must protect against costly freeze-ups, engine damage and the expense of needless downtime.

The continuing savings made possible with "Zerex" and "Zerone" anti-freezes far outweigh any momentary saving you might gain by using anti-freeze products of questionable performance and low initial cost.

Contact your local Du Pont anti-freeze supplier today—and start saving now with Du Pont "Zerex" and "Zerone" anti-freezes.



BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY



For VERSATILE Door Efficiency in any type of building or doorway construction

Kinnear **Rolling Doors**







the wall.











door coils below

Kinnear Rolling Doors save time, cut costs, save space, add protection, save manpower—and fit any doorway or building construction!

You get these multiple advantages from the coiling action of the interlocking steel-slat curtain (originated by Kinnear).

Kinnear Rolling Doors always open out of the way . . . keep all floor, wall and ceiling space clear and usable at all times . give extra all-metal protection against fire, theft, wind, weather,

Extra-heavy galvanizing (1.25 oz. pure zinc per sq. ft. of metal, ASTM standards) gives Kinnear Rolling Doors lasting resistance to corrosion. Built any size, of steel, aluminum, or other metals, with motor or manual operation, for old or new construction. Write for full information!

Saving Ways in Doorways

Or a Kinnear Rolling Door and a Kinnear Rolling Grille (a coiling upward-acting "open-work" of steel bars and links that protects with-out blocking light, air

The KINNEAR Manufacturing Co.

Offices and Agents in All Principal Cities

FACTORIES: 2100-20 Fields Ave., Columbus 16, Ohio; 1742 Yosemite Ave., San Francisco 24, Calif.

GMC V6's Are Compact

Continued from Page 146

continued flow of oil should the element become plugged.

Road draft crankcase ventilation is employed on the 305A engine. Others have positive ventilation. On the road draft type, fresh air is taken through two breather filters-one on each cylinder head cover. Exhaust is out of the left rear of the cylinder block through the road draft tube.

Air passing across this tube creates a partial vacuum effect, drawing air through the breather filters.

On positive crankcase ventilation engines, manifold vacuum draws fresh air through a replaceable paper element breather at left rear of the block. It moves through the crankcase and is drawn off through the intake manifold. Special cap in the head cover (to which the hose to the manifold is connected) makes it possible to remove the cylinder head cover without interference with the ventilating system. This permits use of a common head cover for all the engines.

Velocity-type

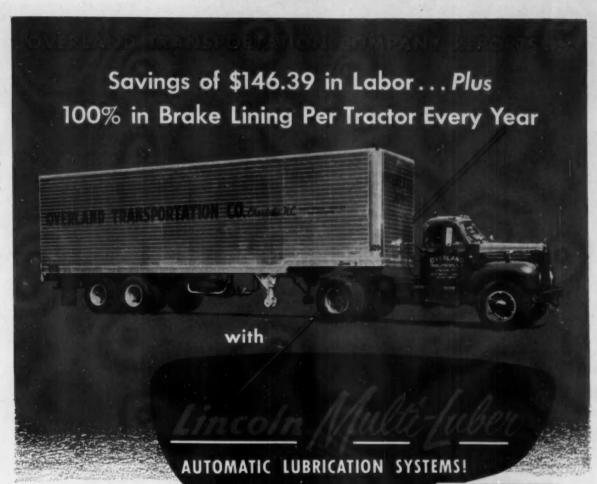
governors are optional on the 305 and standard on the 351 engines. On the 401 and 702 engines, hydraulic pressure actuates the gov-

This consists of two basic units. An oil-pressure controlled unit in the carburetor assembly operates the throttle plates. A spinner valve in the bottom of the oil pump controls the oil pressure. Spinner valve is set to open only at a predetermined engine speed. It's designed to compensate for variations in oil viscosity.

Single-barrel carburetor with manual choke is used on the 305A and 305B engines. On the 305C and 351 models, there's a 11/4-in. 2-barrel carburetor with manual choke. On the 401, a 11/2-in. 2-barrel carburetor is used. Two of these are used on the 702 V-12.

END

Please Resume Reading Page 116



G. H. Graham, Fleet Supervisor, the Overland Transportation Co., Akron, Ohio, writes:

"Since our first installations of Lincoln MULTI-LUBER Automatic chassis lubrication systems on Mack Diesel tractors in 1956, our maintenance figures reflect a labor saving of \$146.39 per tractor per year, plus an additional saving of 100% on brake linings—which savings we can attribute to nothing other than the better lubrication attained by the Lincoln MULTI-LUBER. In addition, there is no measurable wear on King Pins and Bushings in upwards of 200,000 miles. Needless to say, we are installing MULTI-LUBERS on all our new units."



How the MULTI-LUBER Saves on Lubrication Downtime and Costs

Each sixth time the brake is applied, the exact measured amount of refinery pure lubricant required is delivered to all bearings, simultaneously, under high pressure. This continuous automatic lubrication assures a constant protective film of lubricant on all bearing surfaces whenever the vehicle is in operation. The MULTI-LUBER system is completely sealed, so lubricant cannot be contaminated by dust, mud, snow, ice, etc. Bearing life is greatly prolonged, and of course no downtime is required for manual lubrication.

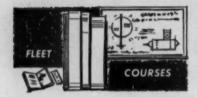


For complete information on the Lincoln MULTI-LUBER, write today for Bulletins 532, 533, and 534.

LINCOLN ENGINEERING COMPANY

Division of The Markline 4 Engineering Co.

ACID COMPETITION AVENUE: ST. LOUIS 20 MISSOURI



HERE IS the latest calendar of fleet training courses for the rest of this year and the first half of 1960. Information is available from the sponsoring college. Complete addresses are listed in the Fleet Course Directory beginning on page 118 of the November '58 issue.

Driver Trainer

University of Utah—Sept. 21-25. Pennsylvania State University— Sept. 26-Oct. 2.

Ontario Safety League-Apr. 25-29, 1960.

Driver Training

North Carolina State College, Extension Div. Four-week courses beginning on the following dates: Aug. 31. Sept. 28. Oct. 26. Nov. 23.



Now is the time to get positive protection against vapor lock that causes vehicles' engines to balk and stall. During the months of June, July and August only—

Stewart-Warner offers this topperforming electric fuel pump at a special hot-weather price! Install it now-for better engine performance all year long!

Here are just a few of the advantages that make the Stewart-Warner Fuel Pump your best buy:

Operates independently of engine! Fuel pump action accelerates when vapor appears in fuel line. Maintains an increased fuel flow until vapor is expelled.

Self priming! Starts operating the instant ignition switch is

turned. Fills carburetor float bowl before starter turns engine over. Result: smoother flow, less battery drain, better mileage.

For cars, trucks, buses! Designed for use on any gasoline engine. 6-volt and 12-volt models.

Call Your Wholesale Supplier Today!

Dept. UU-89, 1840 Diversey Parkway Chicago 14, Illinois



Fleet Maintenance

Pennsylvania State University (Mc-Keesport Center, Pittsburgh, Pa.) evening program meeting two nights a week from Sept. 28 to Nov. 18.

Pennsylvania State University (Ogontz Center, Philadelphia) — evening program meeting two nights a week from Sept. 29 to Nov. 19.

Univ. of Wisconsin, Extension Div.

evening program starting in Sept.

Purdue University—Oct. 5-9.

Northeastern University-Oct. 12-

Oregon State College—Nov. 17-19 (conference).

Univ. of Alabama-Nov.

Ontario Safety League-Feb. 29-Mar. 4, 1960.

Univ. of California (Los Angeles)
—Mar. 9-11 (conference).

Univ. of California (Berkeley)— Mar. 14-16 (Conference).

Univ. of Washington-Mar. 21-23

Pennsylvania State University—Apr. 25-29.

Fleet Supervisor

Pennsylvania State University— Sept. 14-18.

Purdue University—Sept. 14-18. Ontario Safety League—Sept. 21-

Univ. of Virginia-Nov. 2-6.

Univ. of Utah-Feb. 1960.

Univ. of California (Los Angeles)

-Mar. 7-8 (conference).

Univ. of California (Berkeley) — Mar. 17-18 (conference).

Univ of Washington—Apr. 11-15. Northeastern University—May 9-13.

Fleet Operation

Brewster Vocational School (Tampa, Fla.)—Sept. 15.

Univ. of Dayton (Ohio)—Sept. 21-Nov. 23.

Terminal Operation

Province of Quebec Safety League
—Sept.

Univ. of Connecticut-Sept.

Pennsylvania State University— Oct. 5-9.

Univ. of Utah-Feb. 1960.

Advanced Techniques

Northeastern University-Nov. 9-10.

Pennsylvania State University—Apr. 7-8, 1960.

Top Management

Pennsylvania State University— May 2-3, 1960 (conference).

COMMERCIAL CAR JOURNAL, August, 1959

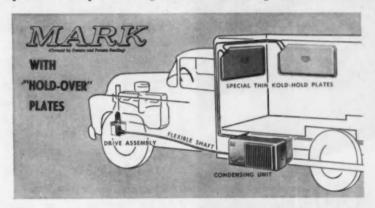
TRUCK REFRIGERATION OF UNITS TO SOLVE YOUR PROBLEMS TO LIDEN OF UNITS TO SOLVE

FIELD-PROVEN DEPENDABILITY you can count on!

The performance records of thousands of KOLD-HOLD units in service are proof of the superiority of truck refrigeration systems tailored to specific jobs. Rugged durability built into each component of a KOLD-HOLD system plus a complete line of drives, condensing units and low sides from which to choose the right equipment pays off in more refrigeration and less maintenance.

KOLD-HOLD equipment is backed by a full year warranty against defects in material or workmanship . . . further assurance that when you invest in KOLD-HOLD refrigeration you can be sure of all the refrigeration you need, every day that your truck is in service.

The KOLD-HOLD man in your area will be happy to help plan for better product protection and profits through KOLD-HOLD refrigeration. Call on him.



This is one of the many systems available in the complete KOLD-HOLD line. It is recommended for meat, milk, ice cube, frozen food and ice cream trucks or any trucks which require body temperatures from —10° to +60°.

Power is transmitted from the truck engine through a heavy duty flexible shaft and cushioning electric clutch to the condensing unit. This method of power transmission, proved in many automotive applications, is simple and trouble-free. It provides top efficiency with minimum maintenance.

The MARK condensing unit features exceptionally high efficiency, rugged durability and economical maintenance. Design and construction features include: "swing down design" which exposes operating parts for servicing; inherently protected motor prevents motor burn-up and has advantage of automatic reset in case of motor "cutouts"; rubber-mounted heavy-duty jackshaft with heavy duty ball bearings; rugged aircraft type frame construction; corrosion resistant finish; and totally enclosed unit construction.

KOLD-HOLD "hold-over" plates are combined with the MARK condensing unit in this system to make it ideal for relatively short routes with frequent stops. These streamlined plates give maximum refrigeration through full eutectic capacity and extremely effective air flow. Internal fins spread heat absorption qualities over the entire surface areas of both sides of the plates. Patented perimeter freezing permits complete filling of the plates without danger of strain on the seams during freezing.



LOW-TEMP BLOWER

The advanced design of the KOLD-HOLD SUPER "50" Blower offers important advantages over conventional types of blowers. Its "Ribbon" design gives more load and aisle space. The two fans are positioned to direct the air around the load to envelop your product in a protective blanket of cold. The SUPER "50" represents the ultimate in load protection for truck bodies.



The CROWN hydraulic system drives the condensing unit at a constant speed. This provides constant load protection at engine idling speeds as well as on the road. Power is derived from the truck engine and transmitted through a constant volume hydraulic pump to a hydraulic motor which drives the condensing unit.

PACKAGED CONDENSING UNIT



This KOLD-HOLD unit is a complete high-side ready for installation and use in freezing "hold-over" plates. It fee-

plates. It features easy installation and servicing. Plugs into electrical outlet to freeze plates in truck on "stand-by" or over night.



WRITE TODAY FOR FREE CATALOG NO. 58

Kold-Hold

division

Tranter Manufacturing, inc.

230 E. Hazel St.

Lansing 9, Michigan

August News Roundup

Continued from Page 122

posal on its eventual acquisition of all transit commuter facilities serving the city plus the local transit company now operated by National City Lines.

How to Explain Your Job

GASTONIA, N. C.—You're a professional. You know how an engine oper-

1959 Domestic Truck Factory Sales by GVW

Month	6,000 lb. and less	6,001- 10,000 lb.	10,001- 14,600 lb.	14,001- 16,000 lb.	16,001- 19,500 lb.	19,501- 26,000 lb.	26,001- 33,000 lb.	Over 33,000 lb.	Total
January	43,702 42,505 44,744 47,940 46,802	13,070 12,866 14,785 16,322 14,680	1,039 1,131 1,206 1,328 1,272	7,007 7,015 7,927 8,190 8,843	7,964 8,882 11,077 11,449 12,029	3,934 4,970 5,467 8,124 5,035	2,586 3,150 3,952 3,806 3,386	2,177 3,256 3,852 3,738 3,514	81,599 83,775 93,060 98,906 95,561
Four Months, 1989 Four Months, 1988	225,762 138,683	71,723	8,038 5,133	40,672 28,083	51,391 30,683	24,520 19,316	16,860 12,276	16,637 11,065	452,901 290,198

Source: Automebite Manufacturers Association.

ates. But how do you make out when you try to explain it to somebody in the "all I know is that you have to buy gasoline" class? Well here's an

answer. It's a new booklet entitled, "What's Under the Hood," and it's especially written for those who never looked. You can get copies by writing Wix Corp., Gastonia, N. C.

Illinois Auto Opens New Facility

CHICAGO—Illinois Auto Electric Co. has opened a new 16,000-sq ft, column-free plant and parts warehouse designed to permit all types of industrial transportation equipment free access to any part of the shop service area. Located on a five-acre lot near Midway Airport, the new service center offers shop service facilities, engineering and installation service, sales, (TURN TO PAGE 160, PLEASE)

1959 Truck Trailer Shipments

Type of Trailor	May	Five
Vans Insulated and refrigerated Steel Aluminum Semi-insulated Steel Aluminum	387 41 326 95 95	1,920 249 1,671 331 331
Furniture, Stool. Alaminism. All other closed-top. Stool. Alaminism. Open-log. Steel. Alaminism. All other Alaminism.	177 144 33 2,217 716 1,501 324 173 161	800 550 140 11,045 3,285 7,760 1,085 447 648
Total-Vans	3,180	15,081
Tanks Non- and low-pressure Petroleum Carbon and alloy steel Stainless steel	246 27 135	1,105 120 679
Total-Petroleum	408	1,904
	100	197
Chemical, feed, fluid selids All other, incl. aircraft refuelers	54 211	741
High pressure (LPG), chemicals, etc	22	146
Total—Tanks	695	2,988
Pele, pipe and logging Single axie	28 135	143 418
Total	163	561
Platforms Racks, livesteck and stake Grain bodies, all types Platforms (flats), all types	38 182 1,115	198 785 4,248
Total-Platforms	1,336	5,209
Low-bed heavy haulers Dump trailers All other trailers	258 208 302	1,150 1,102 1,341
Total-Complete Trailers.	6,142	27,432
Trailor chasels	280	2,019
Total-Trailers and Chassis	6,422	29,451

Source: Industry Division, Bureau of the Census.



One Set-up, One Pass, One Cut— saves you time and money on every engine re-conditioning job. This sensational, down-to-earth priced machine for fleet shops is easy to set-up, simple to operate, and exclusive Top-side loading keeps chips out of work. Revolutionary cutter action removes up to .050 inches of metal in only one cut from average head or block without complete disassembly—most jobs take less than 10 minutes on this new, 38" capacity Rotary Broach.



ALSO.—Van Norman Wet Surface Grinders, 38" and 60" capacities, with great, new CYCL-O-MATIC grinding wheel control. Fully automatic—set dial, push button, walk away. Write for details—Van Norman Machine Company. Division of Van Norman Industries, Inc., Springfield 7, Mass.

VAN NORMAN QUALITY IS THE REASON

VAN NORMAN
OVALUTY IS THE REASON "It Days to View Normanice"



WITH BENNETT FLEETMASTER PUMPS

Cut record keeping costs through accurate control of operating costs and fuel inventories.

Printed record of fuel used by each vehicle ends waste and possible pilferage.

Fast Fleetmaster fueling saves time, cuts labor costs.

Individual printed tickets indicate vehicle fuel consumption and point out need for preventive maintenance.

Sturdy construction and Bennett traditional gasoline pump quality assure exceptionally accurate and dependable operation at lowest maintenance cost.

Available with Register and Totalizer in place of Ticket Printer, Remote Control and Heavy-duty models available.

JOHN WOOD COMPANY

BENNETT PUMP DIVISION . MUSKEGON, MICHIGAN

IN CANADA: JOHN WOOD COMPANY LIMITED . Toronto . Montreal . Winnipeg . Vancouver





Maximum payload . . . greater hauling power . . . easier handling . . . plus all the advantages of the conventional truck. That's what you get in the new Brockway "87-incher" . . . and more. Here are a few of the new Brockway Huskie features: Wider choice of power — gasoline or NH diesel series • Larger cooling capacity • Improved power steering • All steel, Safety-View cab • Dual Headlights • Step-Aside fenders • Easy-Access maintenance. Call your Brockway representative. Let him give you the complete facts about the new Brockway "87-incher."

Brockway

incher"

Like all Brockway Huskie Trucks, the new "87-incher" is designed and built to haul your load over the terrain you haul it. Quality components—engine, clutch, transmission, axles—are matched and balanced to fit the exact requirements of your job. And Brockway's unique flexible production methods offer you the widest choice of individualized vehicles in half the delivery time. It is your assurance of custom-built efficiency and economy that no mass-produced truck can equal. If trucks are the tools of your business, Brockway can point your way to higher profits.

BROCKWAY
MOTOR TRUCKS CORTLAND, N. Y.

Division of Mack Trucks, Inc.

A Living Legend of the Highway for more than 45 years.

Incredible! You'd Think with PEAK®

PEAN ANTI-FREEZE NEVENTS RUST Does Not Boil Away



PEAK WITH RUST-GUARD

"Made To Order" For the '60 Models

(and every other car on the road)

YEARS-AHEAD FORMULA! Three years in research and development — and finally came the break-through. CSC scientists succeeded in attaining their goal — the formulation of a significantly improved ethylene glycol anti-freeze.

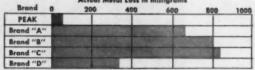
It had to pass hundreds of tests to prove itself! First, in bench-type corrosion tests ... then in a series of exhaustive simulated service tests. And finally, actual passenger-car road trials in which the test cars were driven hundreds of thousands of miles. Result: our introduction last year of the new Peak Anti-freeze with Rust-Guard.

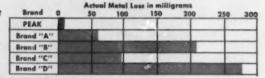
SEVEN SPECIAL CHEMICALS! Only PEAK has RUST-GUARD, the exclusive CSC combination of seven special chemicals in a balanced formulation that gives all the metals and alloys in the automobile cooling system the most effective protection obtainable against rust and corrosion—under all driving conditions!

Proof of PEAK Performance!

1440-HOUR SIMULATED SERVICE YEST (with solutions that protect to 15°) SHOWS THAT PEAK GIVES 5 TO 14 TIMES BETTER PROTECTION AGAINST CORROSION LOSS of aluminum, brass, copper, solder, steel and cost iron!

1440-HOUR SIMULATED SERVICE TEST
(with solutions that protect to 35°
below zero) SHOWS THAT PEAK
GIVES 7 TO 33 TIMES BETTER
PROTECTION AGAINST CORROSION
LOSS of eluminum, brass, copper,
solder, steel and cast iron!





PEAK'S ALL SET FOR THE '60's! The news is — more aluminum in engines and cooling systems than ever before. PEAK with RUST-GUARD is ready for them. PEAK'S

years-ahead formula meets the demands of present-day automotive production—gives maximum protection against corrosion of aluminum.

Detroit Designed the New Cars ANTI-FREEZE in Mind!



PEAK-A-1 for Aluminum!

1440-HOUR SIMULATED SERVICE TEST (with solutions that protect to 35° below sero) SHOWS THAT PEAK GIVES 63 TO 114 TIMES BETTER PROTECTION AGAINST CORROSION LOSS OF ALUMINUM!

Brond 0	10	20	30	40	50	60	71
PEAK							
Brand "A"	937 13	10 mg	P. C. S.				
Brend "B"		Per 180	CD 650	- In her	THE SERVICE		
Brand "C"	DOM: DI	DEL TES	100 TO	DE 50	296	oth to	10.
Brend "D"	MICES TO	COL 860	ich wo		DOS HA		

CAR MANUFACTURERS DEMAND IM-PROVED CORROSION PROTECTION — AND THAT'S WHAT PEAK GIVES! Fact! Because of the special corrosion problems with aluminum, car manufacturers are seeking better anti-freezes to protect aluminum. That's why we call PEAK the "years-ahead" anti-freeze — it will protect where old-fashioned anti-freezes fall short. It's almost as if Detroit had designed the new cars with PEAK in mind!

THE CHOICE OF LEADING U. S. IMPORTER, TOO! Last winter a major importer of well-known continental cars — with a wide variety of anti-freeze brands to choose from — approved only two for installation under the manufacturer's new car warranty — and PEAK was the only nationallyadvertised brand thus approved!

MAKE THIS EASY "PROVE-IT-YOURSELF"
TEST! Clean the cooling systems of a number of your customer's cars this fall to remove old rust and scale. Install PEAK in half of them. When your customers come in for a "drain-out" next spring, see for yourself the extraordinary difference between PEAK and the other brands. Drain off a "sample" from a PEAK-protected cooling system and one from a cooling system protected with any other antifreeze. You'll see the difference. You'll see

the clear, clean superiority of PEAK, and the cooling system of every PEAK-protected car will be "clean as a whistle"!

THERE ARE SOME THINGS PEAK WON'T DO! PEAK with RUST-GUARD won't freeze up, won't boil away, won't harm gaskets or rubber hose. It won't mar or mark the finest car finish. It won't creep, seep or leak from a cooling system tight enough to hold water. PEAK gives guaranteed all-winter, all-weather anti-freeze protection.

PEAK ANTI-FREEZE

with RUST-GUARD

ORDER YOURS NOW — be way ahead with the years-ahead anti-freeze— PEAK

Nor'way

-The Non-Permanent Type for Your Economy-Minded Customers



CORPORATION



NEW YORK 16, N. Y.

August News Roundup

Continued from Page 154

stocks, repair and exchange service for all types of fleet and industrial transportation equipment. It also has a two-acre parking lot, customer snack room and parts stock room.

Latest Truck Statistics Available

DETROIT—Automobile Manufacturers Assn. says the 1959 edition of

Motor Truck Facts is off the press. It gives the size of the nation's truck fleet in numbers, show what and how much they're carrying for several major commodities. It also tells how many trucks are made, sold, registered and scrapped. For a copy, write Automobile Manufacturers Assn., 320 New Center Bldg., Detroit 2, Mich.

ATA Freight Claim Council Elects Officers

DETROIT-John V. Lund, claim director for Roadway Express, was re-

elected chairman of ATA's National Freight Claim Council at the group's recent annual meeting in this city. Re-elected first vice chairman was Grant D. Nelson, general claims agent for Ringsby Truck Lines. James L. Boies, claims and insurance vice president for Carolina Freight Carriers Corp., was elected second vice chairman.



LEGISLATION recently passed by the states is summarized here. Use it as a guide only. Check the exact wording of new laws through your state truck or bus association or your state's motor vehicle department, to see how the law affects your operation. Use the legislative number shown in parentheses to identify the law you're interested in.

California - requires one fire extinguisher on school buses, prohibits carbon tet type (S757); on air brake vehicles, requires that foot-operated brake deliver within 10 per cent of maximum available pressure to most distant brakes (H1365); requires check valves in air supply piping on air brake vehicles (H1367); requires air pressure gage to be accurate within 10 per cent of actual pressure and be visible and legible to driver (H1361); requires use of standard type safety valve for air brakes on vehicles (H1364); requires visible or audible warning device to warn when air pressure drops below 60 lb (H-1360); requires air brake vehicles to have one valve which will operate all service brakes on combination of vehicles (H1362); gives PUC Safety Dept. employees free access to any part of common carrier vehicle (S-

Connecticut—increases length limit to 50 ft for single units and combinations (H3232); regulates muffler and exhaust pipe installation (H3650); increases annual fee for intrastate motor plates from \$5 to \$10 (S1111); requires local fire marshals to inspect vehicles used to haul LP Gas (S555).

Delaware — amends axle spacing table to permit 60,000 lb on axles 27 ft or more apart (S91).

(TURN TO PAGE 162, PLEASE)

Toughest Lightweight on the Road!



THE LYN ALUMINUM TRUCK BODY

When you buy a LYN Body, you buy better performance . . . bigger payloads . . . longer life . . . lowest maintenance cost!

Here's why:

LYN all-aluminum construction reduces deadloadup to 40% . . . features siding beads designed on 4" centers—a strength advantage offered only by LYN.

.040 gauge aluminum roof skins—as much as twice as strong as other bodies—double lapped, guaranteed watertight.

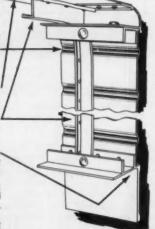
Heavy, extruded aluminum "2" upright posts and cross pieces—no rolled sections—LYN bodies CANNOT drum or balloon.

Beefed up extrusions at points of contact or stress.

Patented reinforced lock-tight riveted corner
castings—LYN bodies CANNOT rack!

All 4 rear corners are shaped and fitted at the factory—insures a square rear body and perfect fitting of doors.

LYN Standard Body Kits come in 9 lengths, 5 width and height combinations. Choice of BEADED panel, SMOOTH skin or EXTERIOR POST models.

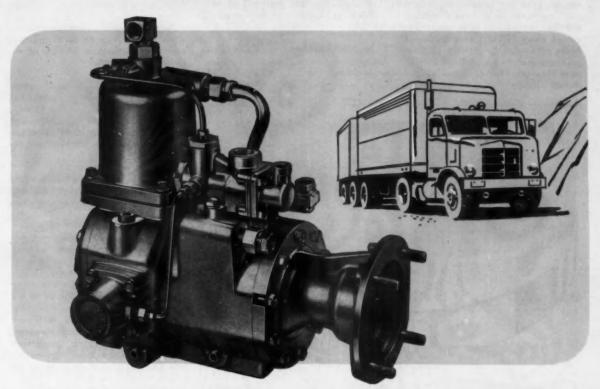


Specify LYN bodies-toughest-lightest-most durable. See your LYN dealer, or write



LYNCOACH & TRUCK CO., INC.

More air reserve for safer braking of diesel powered trucks...



with WAGNER ROTARY DRIVE-THRU COMPRESSORS

The Wagner Drive-Thru Compressor features all the advantages of rotary compression... supplies more air reserve for braking diesel trucks... gives rapid air pressure recovery with smooth, quiet, cool operation.

The design of the compressor eliminates the use of thrust absorbing components and makes it possible to use rotary seals with a minimum of seal loading. Improved channeling permits better oil circulation to all moving parts—lengthens the

service life of the pump and cuts maintenance.

NEW LUBRICATING VALVE. The lube valve on these units circulates cool engine oil through the compressor during the non-pumping cycle and cools the compressor between cycles by completely changing the oil in the sump. Compressor life is prolonged by constant, adequate lubrication.

For full information on these compressors, write to Air Brake Engineering Department, Wagner Electric Corporation, St. Louis 14, Missouri.

Remember, when ordering new equipment, be sure to specify Wagner Air Brakes. Catalog KU-201 gives details.

WK59-8

Wasner Electric Corporation

6470 PLYMOUTH AVENUE, ST. LOUIS 14, MISSOURI

DOCKMEED BRAKE PARTS, FLUID, BRAKE LINING and LINED BRAKE SINGS - AIR BORNS - AIR BRAKES - TACHOGRAPHS - ELECTRIC MOTORS - TRANSFORMERS - INDUSTRIAL BRAKES

August News Roundup

Continued from Page 160

Florida—increases weights in axles spacing table and raises gross weight limit to 66,450 lb (H1876); requires pro rata registration of interstate-operated buses (H738); sets maximum hours of service for drivers (H422); prohibits motor carrier from holding more than one kind of operating authority (H423).

Illinois—increases renewal fees for motor carrier operating authority and provides for reciprocity (H1121).

Iowa—legalizes point system for suspension of driver licenses (S463).

Maine — provides partial fuel tax refund to local transit operators (H950).

Missouri—sets 55 mph speed limit on freight-carrying motor vehicles over 6000 lb, limits school buses to 50 mph, sets a daytime limit of 65 mph and nighttime of 60 mph for passenger carrying vehicles (H213).

Nebraska—raises liability insurance coverage requirements to \$10/20/5000 (LB628); permits paying truck and truck-tractor registration fees in two installments (LB332).

New Hampshire—increases combination length limit to 50 ft (H104); prohibits obstructions to view of vehicle operator (S70).

North Carolina — increases gross weight limit to 62,000 lb (H958); has amended brake requirements (S360); provides that a 35 ft single unit length limit shall not apply to vehicle used in combination with another vehicle (H567).

Ohio—increases motor fuel tax rate to 7¢ per gal with the 2¢ increase going to the state highway construction fund (H836).

Oregon—has amended motor carrier exemptions relative to farm vehicles, school buses and trucks hauling agricultural and forest products (H32); permits the PUC to inquire into motor carrier management (H33).

Rhode Island—has new in-transit license plates for highway construction and well-digging equipment which are exempt from registration fees (H1425); regulates lighting on parked vehicles (H1561).

Texas—has limited excess weight permits for certain vehicles (H863); has amended lighting requirements (S421).



The Sun Oil Co., Philadelphia—to 55 drivers who rolled 1¼ million miles in 1958 without a chargeable accident. Five drivers had a combined total of 132 accident-free years.

All States Freight Inc., Akron, Ohio—to 147 city drivers with one or more years without an accident. High man has a 20 year record without a chargeable accident.

Baltimore Transit Co., Baltimore, Md.—to 45 drivers who have com-(TURN TO PAGE 166, PLEASE)



AERO-SEAL JET Clamps hang on so tightly that no amount of vibration can shake them loose. Exclusive patented feature permits quick installation with just a few turns of the precision worm drive screw. And they can be removed in a jiffy. AERO-SEALS will last for years and are re-usable. Bands and housings are of 302 - 18 - 8 stainless steel. All stainless also available. They won't pinch or damage hose. Forget cut-rate "look-alikes." Genuine AERO-SEALS sell faster — and satisfy. No extra price for Jets. AERO-SEAL REGULARS if you prefer.



BREEZE CORPORATIONS, INC., 700 LIBERTY AVENUE, UNION, N. J.

THE SHOW'S ON THE ROAD!



New traveling panorama of Binkley products

HARDWARE
LANDING GEARS
TIRE CARRIERS
SLIDING TANDEM
ASSEMBLY
SLIDING FIFTH WHEEL
MOUNT

BODY SECTIONS, STRUCTURAL PARTS AND COMPONENTS

It's coming your way. And what a show it is! Watch the mails for advance information concerning the visit of the Binkley truck transportation display to your area.

Sorving the Transportation Industry since 1933



Bulletin.

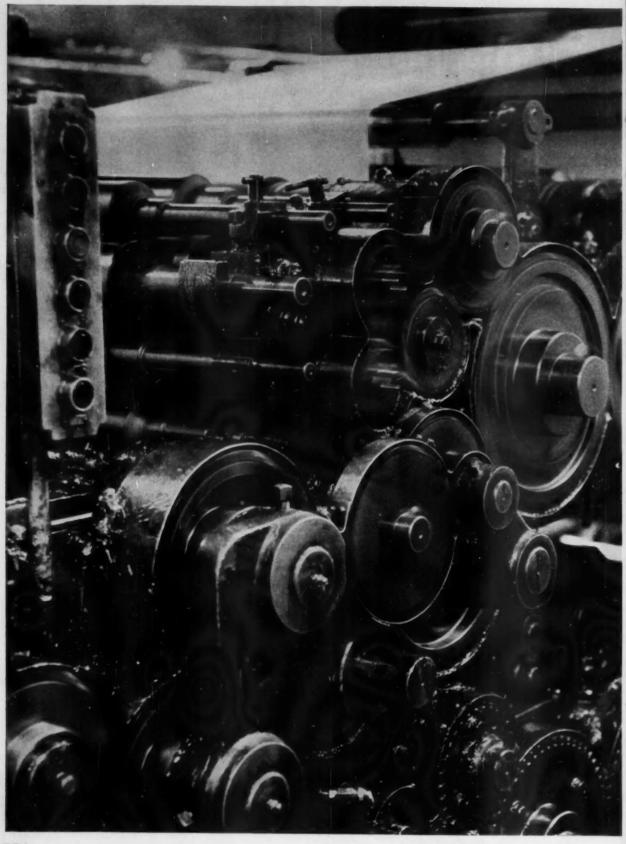
Binkley's new Catalog T-60

Binkley's new Catal

MANUFACTURING COMPANY

WARRENTON, MISSOURI • GL. 6-3456 Dept. A

EASTERN DISTRIBUTOR Thomas Body Parts Co. 516 Wood Street Reading, Pennsylvania Phone: Franklin 6-4088 WEST COAST DISTRIBUTOR Hooper Body & Equipment 2800 Hooper Avenue Los Angeles, California Phone: Adams 3-8125 SOUTHWEST DISTRIBUTOR Steel Specialty Company of Texas 1729 Leves Street Dallas 7, Texas Phone: Riverside 8-1186



164

COMMERCIAL CAR JOURNAL, August, 1959



Dependable systems demand systems planning and engineering

Whether you're pressing the button that starts a 1,740 pound roll of newsprint through a modern, high-speed electronic press that prints, trims, sorts, folds and counts 50,000 newspapers per hour . . . or applying air brakes against the weight of a fully loaded vehicle, you can be sure of peak performance only when all of the precise and interrelated components in the system are designed and engineered to work together.

Air-brake systems could be assembled on a one-component-fromhere, one-component-from-there basis. But for the most efficient, most reliable, most economical performance, you need a *complete* chain of components... every one designed and engineered to perform a specific function in a closely related system where each device is dependent upon another.

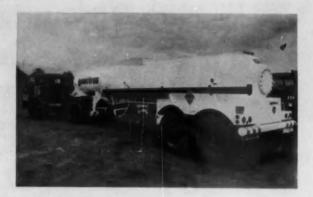
And that's what you get when you specify a Bendix-Westinghouse Air Brake System for your vehicles. Higher performance . . . longer life . . . lower cost . . . and Bendix-Westinghouse accepts full responsibility for the performance of the complete system. That's why more vehicles travel more miles with Bendix-Westinghouse Air Brakes than with all other air brakes combined.



AUTOMOTIVE AIR BRAKE COMPANY
General offices and factory-Elyria, Ohio. Branches-Berkeley, Calif. and Oklahama City, Okla.

Twin-Compartment Tanker

Hearin Tank Lines, Baton Rouge, La., has placed in service a new Delta twin-compartment Genetron trailer. Tank is made by Delta Tank Mfg. Co. mounted on a Trailmobile tandem and is sold through Trailmobile, Tare weight is 17,230 lb. Capacity is 3450 gal. Unit has individual piping to each compartment which makes it possible to haul dual products on the same run. Tank has a 300 lb working pressure and is said to meet both ASME and ICC codes.



Tools

New RIDOID Hex Wrench stops knuckle busting

... gives tight multi-sided grip on all Hex and Square nuts!

Three Sixes: No. 11 for 34" nuts. No. 17 for %" to 11/4" nuts. No. 25 for 1" to 2" nuts. Quick adjustment - stays to size . . . this new Hex Wrench goes on easily, won't slip off -harder you pull, the tighter it grips . . . no more skinned knuckles or rounded nut shoulders! Narrow jaw for close quarters. Famous PHEND heavy-duty design, guaranteed housing, comfortgrip handle. Three sizes for 3/4" to 2" nuts. Make your automotive repair work easier and faster - order PIDDID Hex Wrenches from your jobber.

Avoid Expensive Motor Dismontling! RIDID LonGrip Extractors and

High Speed Drills take out broken off screws fast!









Set No. 10

20 precision tools, Drills, Drill Guides, and Ex-tractors, for 1/4" through screws. Maximum extraction depth 1". Set packed in attractive, non-breakable box.



63 precision tools, Drills, Drill Guides and Bushings, Extractors with Turnuts, in fitted compartment box. Quickly remove all broken screws %" through 1". Extraction depth 1" to 3".

Get quick, clean cuts of tubing and exhausts with

RIDOID Tubing Cutters 5 Sizes for



No burr, no distortion . . . rollers smooth tubing for quick clean connections. Compact, tight, strong, always track perfectly, always handy. Fold-in reamer on Nos. 10, 15 and 20 protects hands. Special 3-wheel cutter, Friends No. 315 for fast, close quarter work.

August News Roundup

Continued from Page 162

pleted five years of safe driving. Each received a diamond-studded five-year award pin.

Brentwood Motor Coach Co., Brentwood, Pa., honored 21 drivers, their wives and guests at its annual Distinguished Drivers Banquet. Eleven men received awards for from five to 10 years of driving without chargeable accidents. Five drivers got diamond awards for 10 years or more without a chargeable accident.

Ward Trucking Corp., Altoona, Pa., presented engraved wrist watches to three drivers in recognition of 10 years of accident-free driving.



National Homes Corp., Lafayette, Ind., has ordered 55 Highway tandem axle trailers. They're the Highway Clipper model open-top, 391/2 ft long. Each will carry an entire 51/2 room house from National's factories to job sites.

Spector Freight System, Chicago, has added 60 new refrigerated trailers to its fleet. They're 40 ft models, are equipped with a reverse cycle refrigeration unit. Five of them are diesel-powered. The trailers are made by Highway Fruehauf and Brown.

Xtra, Inc., Cambridge, Mass., has taken delivery on 65 Freightmaster (TURN TO PAGE 168, PLEASE)

Save time, save money... keep the fleet rolling!

"PRESTONE" anti-

with its exclusive MAGNETIC FILM

PREVENTS BOTH RUST AND FREEZE-UPS

COMES TO YOU IN AGITATOR DRUMS SPECIALLY DESIGNED FOR FLEET USE

"PRESTONE" anti-freeze, and only "PRESTONE" brand, has this MAGNETIC FILM to give you rust-and-corrosion protection. With "PRESTONE" ANTI-FREEZE your fleet is protected against expensive engine damage all winter long. Gives your vehicles longer engine life, gives you lower maintenance costs.

Get "Prestone" anti-freeze in this exclusive, non-returnable, 54 gallon agitator drum! A few easy turns of this built-in handle give you perfectly-balanced inhibitor formulation for maximum rust protection.

**Management of the state o

ORDER FROM YOUR SUPPLIER NOW!

"Prestone", "Eveready" and "Union Carbide" are registered trade-marks of Union Carbide Corporation
MATIONAL CARBON COMPANY - Division of Union Carbide Corporation - 30 East 42nd Street, New York 17, N.Y.



Two New Diamond T Diesels

Diamond T has announced two new conventional diesel series, the 921D and 922D. Features include a new "D" cab 72 in. wide, 80 in. with sleeper cab. Choice of engines includes four Cummins models and the GM 6-71E. Nine transmissions are offered including RoadRangers and the Spicer Synchromaster. The Presto-matic semi-automatic is available with certain Spicer models. Eleven rear axles are offered with ratings to 29,000 lb. Three front axle positions are available. The new models are offered as six-wheelers also with GCW ratings up to 78,000 lb.





August News Roundup

Continued from Page 166

model trailers from the Highway Trailer Co. They'll be used for trailer on-flatcar, or piggyback service on lease to railroads, private and common carriers, and freight forwarders. Trailers have steel integral stake and panel sidewalls and full height plywood interior lining. Trailers include 35 and 40 ft models.

Transcon Lines, Los Angeles, Cal., has placed orders for 1¼ million dollars worth of new equipment. Orders include 36 White Freightliners and 66 Strick 40 ft closed vans.

Global Van Lines, Los Angeles, Cal., has purchased 25 Model FC-186 deluxe furniture vans from Dorsey Trailers. Each is 35 ft long, has 2500 cu ft capacity. All are equipped with General Logistics Series E cargo control system.

Consolidated Freight Co., Saginaw, Mich., has purchased 50 new 40 ft aluminum van trailers. They're equipped with Centrifuse brake drums and Motor Wheel landing gear wheels.

Pacific Mercury's Marketing Division, Van Nuys, Cal., has purchased a fleet of 30 Studebaker Larks. They're used in the company's nationwide service program for its construction equipment division.

Bell Lines, Inc., Charleston, W. Va., has bought 149 new Macks in its fleet replacement program. Cost was 2 million dollars. The new tractors are Mack's model B67LT powered by the Mack diesel.

B & P Motor Express, Inc., Pittsburgh, Pa., has leased 30 Internation-(TURN TO PAGE 172, PLEASE)



There's MORE room for profits when you stock and sell - the Engineered Brake Parts Line that's now more complete than ever!

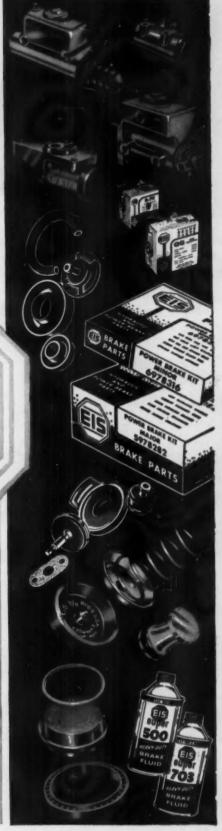
Put yourself on the spot - the EE spot! It pays off handsomely and you'll find yourself in good company, too!



Ask your EIS Distributor or write for catalogs.

EIS AUTOMOTIVE CORP., Middletown, Conn.

COMMERCIAL CAR JOURNAL, August, 1959



Custom
Design
Opportunity
No. 4

Pho



THE

One of six custom design opportunities offered by new SERIES



We're excited about the P-68-largely because it combines almost everything you want in a trailer in a rugged, practical, low cost van.

Its payload capacity for an all-steel, straight floor trailer is exceptional. Inside loading height is 96". Inside width is 93". And weight is low-actually less than some aluminum units-and its all-steel construction promises substantial maintenance economies in rough, tough, cityto-city, dock-to-dock duty.

And the P-68 offers this unusual ruggedness in a trim. smooth sided van. This is because its design simply reverses Trailmobile's famous integral post construction to put the posts on the inside-and the smooth

good looks on the outside. The result is excellent streamlining, and an ideal surface for advertising and fast, easy cleaning.

In addition, the P-68 brings you all the new CID Series '60 features: an improved and drastically lighter tandem ... a more functional and easier to operate prop ... a newly designed under-frame . . . and a new connector case and wiring system.

If you're looking for truly practical values at low cost, look into the Trailmobile P-68. We think you'll like what vou see.

And remember, the P-68 is just one of six basic custom design opportunities with CID Series '60.

TD.761

Customer Individualized Design



RAILMOBILE INC.

nati 9 Ohio 2 Springfield Mo. . Longview Texas . Berkeley 10 Calif.

NEW WIRING SYSTEM

be serviced with the trailer fully loaded now includes a new connector case that provides both 7-way and 6-way plugs, plus new quick-connecting terminals to simplify interchange when electrical connections do not

NEW TANDEM

mobile tandem in an updated model that is lighter by hunsigned rocker beams, a new sub frame substantially reduce

NEW BUMPERS

give solid protection and trans by a new, full-width tail shelf, backed up by the sub-frame.

NEW LANDING GEAR

ing while cranking.









Pushbutton Van Loading at Consolidated

Two Consolidated Freightways vans on the West Coast have been equipped with Watson-DeWitt Moto-Vators. They are powered pallet conveyors mounted to the body floor. Four parallel channel tracks and an electrically-powered roller chain pull the pallet loads forward to the front of the trailer. For unloading, the process is reversed. CF officials report loading-unloading time is drastically reduced. Loads can be unloaded just as fast as the fork lift operator can take them from the rear of the trailer.





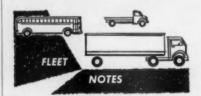
August News Roundup

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al CO200 tractors from Berman Service, Pennsburg, Pa. They're powered by International's RB 450 engine and have RoadRanger transmissions.

Colorado Springs (Colo.) Transit Co., has bought nine new Mack 45passenger buses Model No. C-47.

Mason and Dixon Lines, Kingsport, Tenn., has contracted for 78 new Motorola Motrac two-way mobile radiophones for use in LTL operations in Secaucus, N. J., York, and Philadelphia, Pa., and Atlanta, Ga.



ATA's National Freight Claim Council has awarded nine trophies for outstanding achievements in freight claim prevention. First place trophies were awarded to Carolina Freight Carriers, Cherryville, N. C. in Class A; Security Cartage Co., Fort Wayne, Ind., Class B; and Duff Truck Line, Lima, Ohio in Class C.

Cirker's Moving & Storage Co., New York City has retained Lillian Pierson & Co. as public relations counsel. The moving firm, founded in 1873, is an Allied Van agent and specializes in long-distance hauling of electronic equipment.

Spector Freight System, Chicago, is now operating a diesel-powered Ford tractor. Ford Motor Co. assigned it (TURN TO PAGE 177, PLEASE) BIG, NEW
WHITES
GO

Malight

more payload Weight

ess tractor weight

12/16

WHITE-the businessman's truck ...

1100 NEW REASONS why you'll make more money with a WHITE

This great new diesel tractor can pull 1100 profitable pounds of extra payload, because White's adroit use of aluminum and fiberglass turns deadweight into payweight.

In the photo we've left aluminum parts unpainted to show some of the ultralight elements. Outside, inside, aluminum and fiberglass are used wherever it makes good engineering sense.

Your White will pay top dividends, because it is custom engineered to the exact needs of the hauling job you want it to do.

Your White is a protected investment, because it's built for the long haul. And when care is needed, White's nationwide service specializes in heavy-duty trucks,

THE WHITE MOTOR COMPANY, CLEVELAND 1, OHIO Branches, distributors and dealers in all principal cities

For unparalleled performance and ownership profit, invest in a White...the businessman's truck.

WORLD LEADER IN HEAVY DUTY TRUCKS



New ultralight White 4400TDL diesel tractor is built with heavy-duty components to haul up to 80,000 lbs. GCW, yet weighs 1100 pounds less than conventional tractors. Also available in gasoline-powered models,

NEW LINES

power packed for extra-profit payload hauling

Now there is a White ultra-lightweight to increase payload and profits on every hauling job. Two heavy-duty lines to choose from. Both custom-engineered to meet your exact needs.

Built with more strength and power for rugged work. Yet designed with weight-saving aluminum and fiberglass everywhere it makes good engineering sense... to turn deadweight into payweight!





WHITE 4400TDL — Great new weight-saving tractor that puts up to 1100 profitable pounds into extra payload, without sacrificing an ounce of heavy-duty strength and performance. Custom-engineered to your exact hauling needs. Ideal for lower GCW states where every additional pound of payload means greater profit. And it's available with either diesel or gasoline power.

WHITE 9400TDL — This powerful tractor combines weight-saving with outstanding dimension advantage. Only 90" from bumper to back of cab... and adds at least 1100 pounds extra payload capacity. Heavier front axle loadings. Hauls 40' trailer in 50' over-all length... 35' trailer in 45', Custom-engineered with rugged, heavyduty components. Available with diesel or gas power.

call your White representative today!

WORLD LEADER IN HEAVY DUTY TRUCKS

7/11/13

Now a tachograph with

PUSH BUTTON SAFETY!



A new development by a firm that has built and sold truck recorders since 1911.

Speed, Time and Mileage are all permanently and accurately recorded on 1-DAY or 3-DAY CHARTS. The charts are bigger and easier to read with the "busy and idle time record" on the outside edge where it is clearest of all.

Push Buttons are pressed for various speed limits and a red light flashes to warn the driver when that speed is exceeded. Push Buttons alone may be placed on the dash while the recorder can be located remotely (even at the rear of a pusher-type bus).

Highly accurate . . . rugged . . . dependable. Send for literature now.

Also available: RPM Model that records engine speed and has lights that signal when to shift.

SERVICE RECORDER CO. 1013 F Rockwell Ave., Cleveland 14, Ohio

August News Roundup

Continued from Page 172

to Spector for a two year experimental period. Power is a Cummins NH 220. Tractor is in regular service between Chicago and New York City.

Main Line Bus Co., Springfield, Mo., is operating the first Mercedes-Benz Micro-Bus to be sold in the United States for regularly-scheduled public intercity service. It seats 10, is 16 ft long and is powered by a 4-cyl 74 hp gas engine which gives about 17 mpg in normal service.

Morrison-Knudsen Co., Boise, Idaho, has built a private 11-mile road for the Monsanto Chemical Co. to connect its phosphorus plant in Soada Springs, Idaho, with its phosphate mine. Monsanto hauls the ore over the new road in specially-built rigs carrying 75 tons per trip.



Theodore H. Jones has been elected vice president-general sales manager

of Mack Trucks, Inc. He has been with Mack since 1930 starting as office manager at the Charlotte, N. C. branch. In 1950 he was appointed General Manager of the



Southern Division from Virginia to Florida and west through Tennessee and Mississippi. The announcement was made recently by Elliot G. Ewell, executive vice president-sales.

Hunter Mfg. Co., Solon, Ohio, has appointed Ray Levis as sales manager for transport heating and refrigeration equipment. Hunter makes gasoline and LP Gas heaters and mechanical refrigeration equipment for trucks and trailers.

Jarco Engineering has been formed on the West Coast by Casey Jarvis. Headquarters are at Corona del Mar, Cal. The company will design and manufacture transportation and storage equipment for LP Gas and compressed gases.

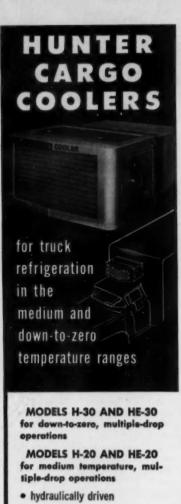


Lubriplate No. 630-2 is a high temperature, extreme pressure, water-repellent, grease type lubricant. Ideal for the general lubrication of Industrial, Automotive, Construction, Farm and Marine Equipment. Lubriplate Grease Gun Cartridges provide an easy, quick, economical means of application. Prevent the waste and mess of hand filling. Packed 10 Cartridges in a handy carrying earton.

REGARDLESS OF THE SIZE AND TYPE OF YOUR MACHINERY, LUBRIPLATE LUBRICANTS WILL IMPROVE ITS OPERATION AND REDUCE MAINTENANCE

For nearest Lubriplate distributor see Classified Telephone Directory. Write for free "Lubriplate Data Book"... a valuable treatise on lubrication. Lubriplate Division, Fiske Brothers Refining Company, Newark 5, N. J. or Toledo 5, Ohio.





- · thermostatically controlled
- light weight permit bigger payloads
- compact occupy less cargo space
- more refrigeration per pound of weight
- · easily installed, easily serviced
- lowest initial cost
- economical to operate and maintain
- · optional electric standby power
- positive dependability
- · long work life
- full year warranty

Write for literature
on models to fit
your specific
requirements.



HUNTER MANUFACTURING CO.
30525 AURORA RD.
5010N, OHIO
TRANSPORT HEATING AND REFRIGERATION

Watch Low Voltage Electrical Shock

THERE IS every need to be careful of low voltages as well as high voltages. Most shop electrical hazards are in the lower voltage range—120 to 440 volts.

This warning was sharply illustrated by an accident which occurred recently in a garage. One of the mechanics on a hot day came into contact with a wire through which he sustained an electric shock. He had suffered such electric shocks before. They never did him any harm. This day, however, "lightning struck him." Immediately after the shock he felt ill, vomited and went to a nearby hospital. He complained of severe headache and suffered from convulsive seizure. His temperature was 102 degrees F. He could hardly breathe, and he died approximately 12 hours after admission to the hospital.

Low Voltage Shock

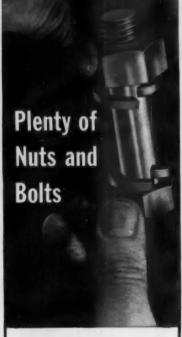
Low voltages are dangerous, they interfere with the mechanism of the heart muscle. They produce "ventricular fibrillation"—a disturbance in the muscular activity of the heart ventricle.

According to a report in the "Journal of the American Medical Association," the intensity of current was less than 110 ma in two recent cases of fatal shock. Currents as low as 25 ma have been fatal. In other cases however, current of many amperes have failed to cause death although they produced severe local burns in the extremities.

Shock Inconsistency

Why such inconsistency? It results from the different paths taken by the current in the body. The heart is the most vulnerable organ. And interestingly enough, within each movement of the heart there is a period during which the heart is less susceptible to shock than it is at other times. For this reason, the exact instant of the shock is often all-important in deciding the outcome.

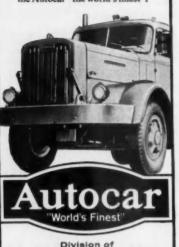
Damage from the electric shock usually is either of a temporary nature, or it is fatal. Rarely permanent damage will remain after electric shock. For first aid after electric shock, start artificial respiration immediately. Early stiffening of the body is no sign for ceasing artificial respiration. Three or four hours or longer of artificial respiration may be needed before success can be seen.



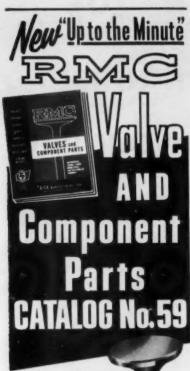
... another reason for

Autocar's fine reputation

Nut and bolt assembly is far superior to the usual riveting and welding method in building a truck. It makes for more durable construction, lower maintenance and easier replacements in service. It is just one more quality characteristic that makes the Autocar "the world's finest".



The White Motor Company Exton, Pennsylvania



UP-TO-DATE LISTINGS of ALL CURRENT PAS-SENGER CAR & TRUCK VALVES, also late IN-DUSTRIAL & AIR COOL-ED ENGINE APPLICA-TIONS.

It's a "Time" Saver for Counter & Shop men-for all Valves and Component parts are listed together for faster, easier finding. Contains Valve train information only.

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RICH MANUFACTURING

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Basic Supplier to original Equipment Since 1968

Life with Bureaucratic Traffic Control

WITH TRAFFIC jams getting worse every day, the time may soon come when you'll have to get a permit to enter a highway at an allotted time. Use of roads by motor vehicles would be "by appointment only."

Drivers with routes and time approved in advance would "punch in" at time clocks as they prepared to enter a major artery.

If you live northwest of Chicago, for example, and work downtown you'd have a personal slot allotted in moving traffic on Michigan Ave., say for 7:45 AM. And, you better be there, car and all, on the dot!

Penalties for late arrival (causing a throwback to old-fashioned traffic congestion of the '50s) would be banishment from the thoroughfare for three days. Five offenses of this nature would automatically inflict lifetime banishment. The same would go for the main traffic routes in all major American cities.

Tongue-in-cheek

promoter of this fantasy on how to handle traffic problems of the future which, "in truth, may be just around the corner," is E. F. Tomlinson, president of B. F. Goodrich Tire Co. He hopes to call attention, this way, to the Nation's lagging highway construction program.

"The crawling, exhaust-guzzling, honking, bumper-nudging, completely frustrating experiences we encounter on our way to and from work could actually change the national character," Tomlinson says. "What we used to call the 'open road' is now a clogged artery forcing us into 'mobile schizophrenia,' a medical term I invented myself after an aching hour at the wheel."

The faint line between fact and fancy blurs as Tomlinson contemplates bureaucratic controls our inadequate roads may soon cause to be forced upon us:

(TURN TO PAGE 182, PLEASE)

HOW ARE YOUR TRUCKS DOING?

..get facts at cost of little more than 2¢ per day per truck



WAGNER TACHOGRAPH graphically records starts, length of stops, speed traveled

A Tachograph on a truck not only "supervises", but encourages, safer more economical operation of a vehicle. A chart is placed inside the Tachograph before truck starts on run. All truck movements are graphically recorded on the chart (which costs a little more than 2¢ each). At end of day the chart is removed from Tachograph and you have a permanent record of trip log.

For details, use coupon for free copy of Bulletin SU-3.



Wasner Electric Corporation

6476 PLYMOUTH AVE. • ST. LOUIS 14, MO.
Please send a copy of Bulletin SU-3

Nome		
Company		
Address		
City & State		
We operate	Vehicles	W619-1

Use this Champion know how to improve ignition performance and cut shop costs in your fleet

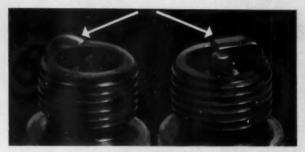


Champion representative points out to fleet mackanic a distributor cap that was causing rough engine operation. (See Service Tips)

EXCLUSIVE TECHNICAL HELP

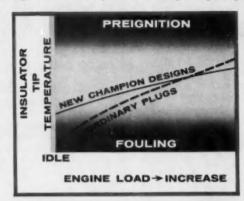
To help your fleet get the best and most economical spark plug performance, Champion offers this expert technical help. At your request, a Champion representative will call on your fleet. Working right in your shop, he'll bring your mechanics up to the minute on the latest technical "know how" from Champion, the world's largest organization devoted exclusively to spark plug development. This exclusive technical help is available free from Champion. Use it to improve ignition performance and cut shop costs in *your* fleet. Just call your Champion representative or supplier, or write Champion at Toledo 1, Ohio.

CHAMPION SPARK PLUG COMPANY



MAXIMUM LIFE

Both of these spark plugs were run for the same length of time in an engine operated under heavy hauling conditions that pushed combustion chamber temperatures up into the critical ranges. See how Champion's Powerfire electrode (R.) outlasted the other! That's why you get better performance longer with Champion spark plugs.



WIDER OPERATING RANGE

This graph shows you how Champion's wider operating range allows Champions to run hotter at low engine speeds to fight fouling, cooler at high speeds to guard against pre-ignition and excessive electrode wear. For the best possible performance at all speeds, in all your engines—install Champion spark plugs.



QUALITY CONTROL

The quality of every Champion 5-rib ceramic insulator is guarded by 1,666 inspections! In this control center, technicians make sure that proper temperatures and pressure are constantly maintained in the huge kilns that fire and harden Champion insulators—assuring you of the same top quality in every Champion spark plug.

CHAMPION

Service Tips

for better engine performance

CHECK THOSE DISTRIBUTOR CAPS

Too often it's assumed that distributor cap towers don't wear out, and consequently they are not checked as often as they should be.

One of the biggest causes of early cap failure is an ignition lead not pushed snugly into the tower. The arcing that occurs produces high resistance corrosion at the terminals. If it is allowed to continue long enough, it eventually destroys the surrounding insulation. (See photo



cbove.) Unfortunately, the rubber boots over the towers usually collect a generous coating of grease and road dirt which effectively hides this potential source of ignition failure unless careful examination is made.

And while you have your hands on the distributor cap, be sure to see that it is seated properly on the distributor body. If the cap is cocked, it will cause the engine to run roughly and eventually break the rotor.

18 OF 21 TRUCK MANUFACTURERS INSTALL

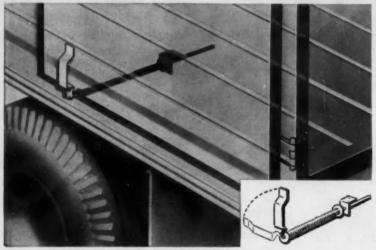
CHAMPION

SPARK PLUGS

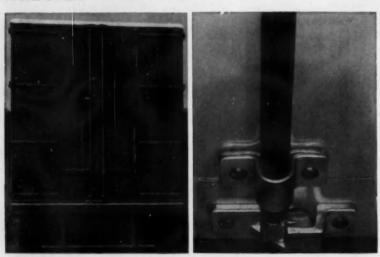


TOLEDO 1, OHIO

HARDWARE Cleveland NEWS FROM Cleveland



NEW . . . SPRINGLOADED VAN-DOOR HOLDFAST. Pull, Turn and Let Go! No fumbling even with gloved hand. Doors are positively locked to trailer sides. Complete with forged mounting bracket, heavy-duty spring, hardened shaft, and rugged, comfortable handle. Mounts securely under flooring. Worth many times its low cost.



NEW . . . CAM LOCK by Cleveland. Exclusive 2-way cam eliminates truck door shifting. Forged cams and pockets reduce vibration wear. Stronger, yet weighs 25% less. Cleveland Cam Locks are universal for right or left hand doors. Cadmium plated. Ask about the low cost. For complete information, write today: Forge & Fittings Division, H. K. Porter Company, Inc., 3270 East 79th St., Cleveland 4, Ohio.



PORTER SERVES INDUSTRY: with Rubber and Friction Products—THERMOID DIVISION; Electrical Equipment—
DELTA-STAR ELECTRIC DIVISION, NATIONAL ELECTRIC DIVISION; Copper and Alloys—RIVERSIDE-ALLOY METAL
DIVISION; Refractories—REFRACTORIES DIVISION; Electric Furnace Steel—CONNORS STEEL DIVISION, FUNCAN-KIDD
STEEL DIVISION; Fabricated Products—DISSTON DIVISION, FORGE AND FITTINGS DIVISION, LECKHEN WIRE ROPE
DIVISION, MOULDINGS DIVISION; H. K. PORTER DE MEXICO, S.A.; and in Canada, Refractories, "Disston" Tools, "Federal"
Wires and Cables, "Nepcoduct" Systems—H. K. PORTER COMPANY (CANADA) LTD.

Traffic Control

Continued from Page 179

Your driving permit, entitling you to reserved space on the highway at a given time, would be issued by the ARCODCUMRST commission, Authority for Regimented, Coordinated, Organized, Disciplined, Controlled Use of Metropolitan Roads, Streets and Thoroughfares.

As Tomlinson sees it.

the ARCODCUMRST will assign by lottery, original times and port of entry positions for highway users. If you work downtown during the day, and are lucky, you will enjoy access to controlled highways during the day. This could be worse—you might draw a night highway use permit which would leave you high and dry during the day and nowhere to go at night.

After three years of accredited, docile, uncomplaining performance on a night permit, night drivers could qualify for tickets permitting use of the highways by day. These stalwarts would take the place of laggards who prove themselves unworthy of the A.M. driving privilege by oversleeping five times and, thus, incurring lifetime banishment from daytime driving.

The ARCODCUMRST.

according to Tomlinson, would be a flexible, democratic type of bureaucracy. Arrangements for substitutions, either of route, driver, car or port of entry could be made on three weeks' notice.

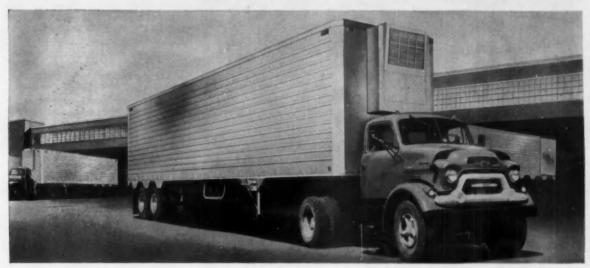
For cross-country trips between metropolitan areas, regulations would require auto tour plans to be filed three weeks before date of highway entry. Arrangements might also be made through ARCODCUMRST to permit exclusive use of highways by women drivers during designated bours.

In a few years, lack of adequate roads could literally turn our world topsy-turvy, turn night into day for half our working people, Tomlinson says. This pattern of civilization would evolve from a theory of equal use of our highways by day and by night.

Since not enough people could drive downtown during the ordinary work day to provide all the necessary goods and services for the expanded metropolae of the future, business, commercial and industrial enterprises must adopt a 24-hour operating schedule.

NOW-FULLY INTERCHANGEABLE FRUEHAUF REEFERS!

First <u>FULLY</u> Interchangeable Steel And Aluminum Vans — Now First With Fully Interchangeable Lightweight Reefers!



New 1959 Aluminum and Steel Fruehauf Refrigerator Volume ☆Vans

Haulers of perishables can now specify the exact combination of reefer materials that fits their particular weight, strength, temperature, and price requirements!

Variations from all-aluminum to all-steel Trailer construction are now possible because of Fruehauf's complete interchangeability concept. The one exception is the new, one-piece, leakproof aluminum roof. But you can combine aluminum exteriors with steel structural members almost in erector set fashion.

It's the finest refrigerator van ever built, and the low weight even of an all steel unit will amaze you. Options include the lubrication-free Leaf Spring or stable, lightweight Safety Air Suspension.

Inquire about interchangeable Fruehauf Reefers before you buy any refrigerated unit. When you compare weight, space, and price, your decision will be easy.

4 TYPES OF FRUEHAUF INSULATION



Glass Fibre Ultra-fine, non-settling



Saniblock
Styrene
foam plastic



Sanifoam Self-blown foam-in-place



Sanistruct Sanifoam and Saniblock



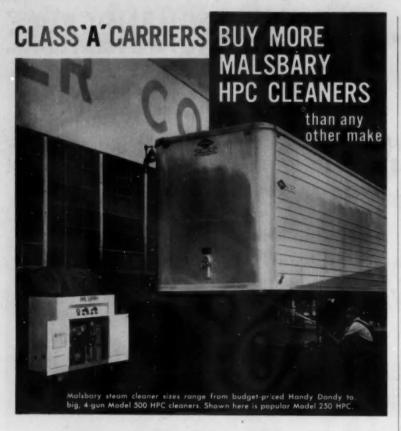
For Forty-Five Years—More Fruehauf Trailers On The Road Than Any Other Make!

World's Largest Builder of Truck-Trailers

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SEND ILLUSTRATED STORY, WITH NO OBLIGATION, ON NEW, FULLY-INTERCHANGEABLE REFRIGERATED VOLUME AVANS.

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Company		
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City	State	



Wherever the fleet maintenance job is a continuing and really tough operation, there you find Malsbary High Pressure Combination cleaners working. The maintenance director of one of the world's largest fleets sums up the reason thus:

W 16 years of experience with Malsbary convinced us it's ideal for our heavy work load, 24-hour, 7-day week schedule. W

The choice of Malsbary HPC cleaners by this user and hundreds of others can be your guide to better steam cleaning. Why not use our buy-and-try plan and see for yourself what Malsbary can do for you.

MONEY BACK OFFER We're confident you'll be happy with Malsbary performance in your shop. So you buy a Model 250 (or bigger) HPC and try it for 10 days; if you are not completely satisfied that it does reduce your cleaning costs, return it and our dealer will refund your money. You can't lose! Call him now (see yellow pages of phone book) or write us.

ASK ABOUT the Malsbary green steam cleaner hose . . . it's durable, oil and abrasion resistant.



845 - 92nd Ave., Oakland 3, Co

ICC Blames Speed and Reckless Driving for Four Deaths

THE DEATH OF four persons and blamed on excessive speed and THE DEATH OF four persons was reckless driving in an accident on June 4, 1958, on the Chattahoochee River Bridge in Atlanta, Ga.

The ICC report by Commissioner Laurence K. Walrath stated that the tractor-trailer operated by Bowman Transportation, Inc., East Gadsen, Ala., collided with four other vehicles on the bridge. Witnesses stated that the tractor-trailer changed lanes frequently in a reckless manner as it traveled down a steep hill approaching the bridge.

The vehicle entered

the bridge in the right outside lane. struck a 12-in, vertical curb, mounted the sidewalk for almost 120 ft, then crossed the four traffic lanes and collided with the left side of the bridge railing. The tractor overturned on a station wagon. The semitrailer continued forward until it overturned and blocked traffic. Three cars in the heavy rush hour traffic ran into the wreckage.

Fire resulted from the broken fuel tanks and destroyed the tractor, both drivers being burned to death. Two passengers in the station wagon were also killed. Eight others were injured severely. Property damage amounted to an estimated \$21,000.

The ICC Investigation was unable to determine which of the two drivers was at the wheel at the time of the accident. However, one of the drivers had been in two previous accidents in 1958, one in 1956 and four in 1955. He had been suspended by the company for a week after one of the accidents. After another acci-

dent he was reprimanded.

The report concluded: "The tragic results of this accident are such as to demand positive action on the part of regulatory authorities to assure safety and welfare of users of the highway. Motor carrier managements must assume the initiative in dealing with this problem or face increasingly rigid regulations and more vigorous enforcement action."

134

Belden WIRES - CABLES - CORDS WIRE

Primary Wire For the Hot Spots

Ask Your Belden Jobber

Engineered for use in the hot engine compartments. Silicone Rubber Insulation withstands extreme heat from exhaust, manifolds, and all other hot spots. Glass braid protects against fire, and nylon jacket resists effects of gasoline, oil, anti-freeze, and steam cleaning fluids.

S.A.E. Types I and II —A.T.A. Color Coding

Now available in all standard A.T.A. colors? Tough Plastic Insulation with low moisture absorption; resists flame, oil, gasoline, grease, acid, fungus, and most solvents. Flexible at low temperatures — high dielectric — high temperature stability. Sizes 20 to 8.

S.A.E. Type II extra heavy-duty construction for all frame and exposed wiring requirements. Sizes 16 to 10.

Neoprene Trailer Cable—with A.T.A. Circuit Coding

Two, four, six, and seven conductor flexible stranded cable for all electrical hook-ups between tractor and trailer—marker and clearance lamps, directional signals, stoplights, and auxiliary lighting. Neoprene sheathed to resist oil, grease, road tars, and weather.

Also Heavy-Duty Duplex Cable— Battery Cable—Terminals— Spark Plug Wire—Wiring Kits

One Wire Source for Everything Electrical and Electronic

Belden
WIREMAKER FOR INDUSTRY
SINCE 1902

CHICAGO

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Magnet Wire • Lead Wire • Pewer Supply Cords, Cord Sets and Portable Cord • Aircreft Wires Electrical Newsehold Cords • Electroeic Wires Welding Cable • Automotive Wire and Cable



PRODUCTS

DESCRIBING RECENTLY ANNOUNCED PRODUCTS AND EQUIPMENT OF INTEREST TO MEN CONCERNED WITH TRUCK, BUS AND CONSTRUCTION FLEET MANAGEMENT

FOR READERS

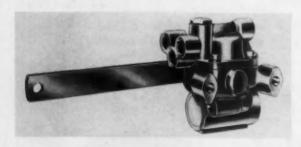
A NEW SERVICE | For quick information about New Products you're interested in, phone or write the person named directly below the description



Rotary Snowplow

is both a deep snow and high speed plow. Named the Snowblast, it can remove 6 in, of new snow at speeds up to 35 mph, and throw it 50 ft to the side at the rate of 2000 tons per hour. One diesel engine powers the rotary plow through a multiple-speed transmission. The fourwheel-drive truck has its own diesel driving an Allison torquematic three-speed, full power-shift transmission.

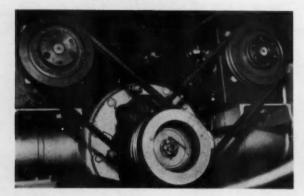
Contact Edward F. Taylor, Pres., Edward F. Taylor Co., 1237 Shoshone St., Denver, Colo, Phone: TAbor 5-1327



Air Ride Leveling Valve

keeps floor height constant on trucks, trailers and buses equipped with air suspension. The valve controls the amount of air in the pneumatic bellows to compensate for increase, decrease or shift in load. Advantages of the new Wagner valve are said to be dependable operation and prevention of air waste.

Contact L. C. Dobrunz, Sales Promotion Mgr., Wagner Electric Corp., 6400 Plymouth Ave., St. Louis 14, Mo. Phone: PArkway 1-5000.



Axle-Powered Trailer Refrigeration

is for use in the 60 deg F to subzero range. System is made by Tranter's Kold-Hold Div., gets its power from the Timken-Detroit TKP-500 "live" axle. As shown here, the axle drives two constant volume hydraulic pumps which run a hydraulic motor driving the reefer condensing unit.

Contact S. J. Stowell, Sales Mgr., Tranter Manufacturing Inc., 735 E. Hazel St., Lansing 9, Mich. Phone: IVanhoe 4-4531.

Traction Cleats

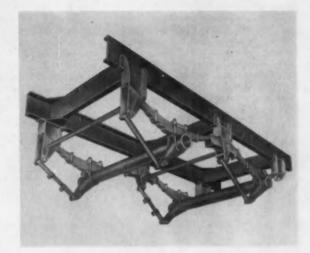
go between dual-wheeled tires, fit any size wheel from 7.00 on up to 11.00, 20 or 22.5 in. rims, tube or tubeless. They're called Truck-Outs and are easily installed. Each cleat is mounted on a nylon bag covered with gum tread. The driver slides it between the dual wheels and inflates it with a hose connected to the outer tire. It takes about 2 lb of air. Once inflated, the cleat cannot come loose. The cleats can be used to get in and out of muddy construction sites or to free a truck stuck in mud or snow. Contact Richard L. Palmer, Palmer Industries, Inc., 846 W. 56th St., Indianapolis 3, Ind. Phone: Clifford 5-9363.



Tandem Axle Suspension

is the new Reyco Model 42 designed to carry heavier future axle loads. The Model 42 is said to handle today's axle weights and any increased ones in the future by simply installing heavier springs in the suspension. Suspension is available in six basic models in 24 variations, with flanged type bolt-on models as well as universal side or underframe weld-on models. Mounting heights range from 13 to 18 in. Axle seats make all units adaptable for round or rectangular axles. Other features include lube-free rubber equalizer bushings and Reyco's no axle hop construction.

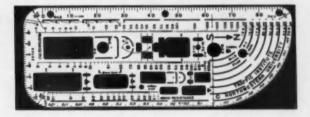
Contact George T. Fox, Pres., Reynolds Mfg. Co., 600 N. Prospect Ave., Springfield 2, Mo.



Traffic Template

is for making scale diagrams of accidents. Template is 10 x 3\% in., was designed by J. Stannard Baker, director of the Traffic Institute, Northwestern University. Fleet safety men, traffic engineers and others can use it to draw accident diagrams accurately to scales of 10 and 20 ft to an inch. Vehicles, signs and other traffic symbols can be outlined with the cut-outs. A 20-page illustrated manual comes with the template and shows in detail how to use it and how to estimate speed from skid marks. Price is \$2 each or \$1.60 for orders of five or more.

Contact J. Stannard Baker, director, The Traffic Institute, Northwestern University, 1804 Hinman Ave., Evanston, Ill. Phone: GR 5-8020.

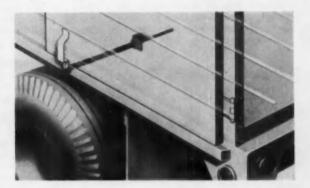


Door Hold-Back

is for large truck van bodies and semi-trailers. Named the Hold Fast, it's mounted through the body side panel and underneath the floor. The door hold-back is drop forged and cadmium plated and is supplied with a steel or brass high-strength spring. Pull and turn to hold or release the door. It can be operated with gloves on.

Write Cleveland Forge Works, Forge and Fittings Div., H. K. Porter Co., Inc., 3270 E. 79th St., Cleveland 4, Ohio.

(TURN TO NEXT PAGE, PLEASE)





(See also Fleetmen's Library on p. 72)

"How to Repair Acrylic Finishes the Easy Way" is the title of a brochure from Ditzler. It shows in detail a simplified method for repairing the new super automotive lacquers. Write Ditzler Color Div., Pittsburgh Plate Glass Co., 8000 W. Chicago Ave., Detroit 4, Mich.

"Concrete Mixer Application Data Book" helps construction fleets in proper truck selection. Published by Ford, it covers the various types of mixer bodies and drives, weight distribution, mixer body specifications and applications. The booklet is offered free through local Ford dealers.

Dump trailers are described and illustrated in a brochure from Trailco. Steel and aluminum models are shown. Contact Jesse Lane, Pres., Trailco Mfg. & Sales Co., Hummels Wharf, Pa., for your free copy. Phone: DRake 4-0111.

Molykote lubricant selector chart shows the right moly lubricant for practically all extreme pressure applications. Ask for Bulletin No. 21. Contact David M. Noltie, Vice Pres. Sales, The Alpha-Molykote Corp., 65 Harvard Ave., Stamford, Conn. Phone: Fireside 8-3724.

Loading dock ramps which can be power-adjusted are described in an 8-page brochure from Rowe. Also shown is a hydraulic truck leveling device. Contact C. W. Chormanski, Gen. Mgr., Rowe Methods, Inc., 2534 Detroit Ave., Cleveland 13, Ohio. Phone: MA 1-9841.

Grease and oil absorbent is described in a pamphlet from Florco. A free sample comes with the literature. Write the Floridin Co., P. O. Box 989, Tallahassee, Fla.

LP Gas fuel system catalog shows original equipment and conversion kits for truck, buses, taxis and industrial engines. Specifications, service and installation data is included. For your free copy, write Marvel-Schebler Products Div., Century Gas Equipment Co., P. O. Box 863, Decatur, Ill.

Safety Index Test is described in a new 8-page brochure. Tests help you find the accident-causing "injury repeater." Contact Morton E. Calvert, Executive Assets, Inc., The Whitehall Bldg., 17 Battery Place, New York 4, N. Y. Phone DIgby 4-0500.

Window catalogs describe the Bayley line of aluminum windows, steel windows and doors, and aluminum or steel curtain wall systems. For free literature, write The William Bayley Co., Springfield, Ohio.

New construction machinery from Allis-Chalmers is described in two new booklets. Booklet MS-1312 gives engineering and operating features of the new TS-260 motor scraper. Booklet MS-1251 covers the HD-6 diesel crawler tractor. Booklets are available through your local dealer or by writing Construction Machinery Div., Allis-Chalmers Mfg. Co., Milwaukee 1. Wis.

All-wheel drive brochure shows the Marmon-Herrington line built exclusively for Ford trucks. Included are specifications and applications. Contact E. F. Ray, Sales Mgr., Marmon-Herrington Co., Inc., 1511 W. Washington St., Indianapolis 7, Ind. Phone: MEIrose 2-5441.

Trash disposal bodies are shown in new literature from Hercules Galion. Shown is the company's line of hydraulic Hydro E-Z Packers. Write W. A. Hoy, Hercules Galion Products Inc., Galion, Ohio. Copies are free.

Dump truck and trailer bodies are described and illustrated in a new catalog from Galion. Both steel and aluminum models are included. Hydraulic hoists are also described. Write W. A. Hoy, Galion Allsteel Body Co., Galion, Ohio, for free copies.

Hercules-Galion transit mixers are described and illustrated in recently published literature. Models range from 4 to 7 yd capacity. Literature is available from W. A. Hoy, Transit Mixer Div., Hercules Galion Products Inc., Galion, Ohio.

Moly lubricant suppliers are listed in a recent bulletin from Climax Molybdenum Co. Listing shows company name and address and brand name under which it sells "Moly" lubes. Write for Bulletin No. Lu-2c. Address is Climax Molybdenum Co., Div. of American Metal Climax, Inc., 500 5th Ave., New York, N. Y.

New Products

Continued from Page 187

In-The-Line Fuel Filter

is a ceramic and magnetic gasoline filter which is installed directly in the fuel line of any car and most trucks. Cigar shaped, it takes up almost no space yet is said to filter out dirt and iron oxide particles which cause clogging, flooding and stalling. Named the Carfilter, it comes with hose fittings and clamps to simplify installation.

Contact Leonard W. Martikonis, Carter Carburetor Div., ACF Industries, Incorporated, 711 N. Grand Ave., St. Louis, Mo. Phone: JE 1-

Trailer Cleaner

cleans and brightens aluminum and stainless steel vans and trailers. It's called Dual Bright 35, is made by Ross and White. The chemical is sprayed on, then washed off five minutes later. It is said not to affect painted signs and decals.

Contact A. D. Nicolay, Sales Mgr., Ross and White Co., Chicago Daily News Bldg., Chicago 6, Ill. Phone: CEntral 6-3855.

Truck Rack

is an adjustable, multi-purpose type made of pipe and cast aluminum fittings. It comes ready-built or as a "do-it-yourself" kit. The Adjust-A-Rack has nine different variations



using seven fittings. Rack is held together by recessed set screws and tightened with a hex wrench. Pipe isn't threaded or welded and can be removed or adjusted by loosening the set screws.

Contact Edward M. Bunte, Pres., E. M. Bunte Mfg. Co., 3166 West Fork Rd., Cincinnati, Ohio.

Solid Film Lubricant

is for pre-lubrication of parts during engine rebuilding. The dfg-123 lubri-(TURN TO PAGE 190, PLEASE)







The UNISTEEL TRIPMASTER, one model of the world's largest family of steel and aluminum van bodies built by Unisteel Body Company, Lengths: 12', 14', 16', 18', 20'. Width: 92". Heights: 78" or 86". Also, a wide range of rear end, lining and accessory options.

COMBINATIONS UNLIMITED

When you say "Unisteel", you needn't settle for anything less than the body specifically designed to satisfy your needs. Why? With volume component production and custom assembly, Cargo Engineered Unisteel Van Bodies give you a choice of more than 1500 combinations. There's one just right for you. Ask your nearby Unisteel Distributor for the complete story.



nisteel UNISTEEL BODY CO.

GALION, OHIO . Factory at Wapakoneta, Ohio, U.S.A.

STEEL OR ALUMINUM VAN BODIES + LEVEL FLOOR + WHEELHOUSE + CLOSED TOP + OPEN TOP + REFERS + EXTERIOR POSTS + SMOOTH PANEL + RIBBED PANEL + VERTICAL PANEL - BEVERAGE + NUMEROUS OFFICIALS

Staggered Seat Double Decker

A local transit company in South Holland, Netherlands, is operating a unique staggered sent double deck bus. It seats 74. Center isle is on the first level with seats on each side facing back-to-back. Small steps between these seats permit passengers to step up to seats on the upper level. Bus is 35-ft long, 11-ft high and weighs nine tons.



Superior sealants insure superior repairs

PERMATEX SEALANTS HELP KEEP FLEETS ON THE ROAD LONGER

Just as all repair jobs are not alike . . . all sealants are NOT alike. Permatex tailors them to the job . . . gives fast or slow . . . hard or soft setting . . . with special properties as needed. Stock them all for best results, and keep vehicles rolling.



PERMATEX

COMPANY INCORPORATED 300 Broadway, Huntington Station, L. I., N. Y. Factories: Brooklyn, N. Y. • Kansas City, Kan.

New Products

Continued from Page 188

cant, as it's called, forms a solid surface layer over dry metal to prevent scoring, scuffing and seizing. It's made of colloidal synthetic graphite which is sprayed on in liquid form. The liquid evaporates instantly, leaving a solid film. It's recommended for use on engine parts such as bearings, crankshafts and pistons. It also gives supplemental lubrication during engine break-in.

Contact Ed Miklovic, Sales Promotion Mgr., Miracle Power Products Corp., 1101 Belt Line St., Cleveland 9, Ohio. Phone: SHadyside 1-1388.

V-Band Coupling

is for joining tubing, ductwork and engine exhaust connections. It is a new type latch using a hex-head bolt instead of a T-bolt welded into the



coupling. If the hex-bolt and nut "freeze" from heat, rust or corrosion, it can be cut off and replaced with a new one—still using the same coupling. The coupling and band are stainless steel.

Contact William Voss, Pres., Voss Engineering Co., 2193 W. 26th St., Cleveland 23, Ohio. Phone: PR 1-6344.

(TURN TO PAGE 194, PLEASE)



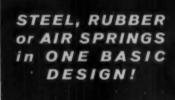
HENDRICKSON Air Suspensions reduce bulk transport costs

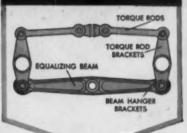
No other tandem suspension combines low weight, low operating cost and a soft ride as does Hendrickson Series "AR" Air Ride.

Equipment damage is eliminated because Hendrickson "AR" Air Springs are engineered to provide a soft, smooth ride for both loaded and empty bulk trailers, combined with stability not found in other air suspension units.

Proven, patented features of Hendrickson Tandems offer: elimination of lubrication, elimination of tire hop and tire scuff and elimination of downtime for repairs. Costs go down—profits up!

All Hendrickson Tandem Suspensions are interchangeable between trucks, tractors and trailers—and are also interchangeable between makes of axles. Parts incentories can be reduced! Fleet operators can specify the design best suited for each particular operation.

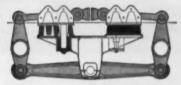




RT SERIES, steel springs

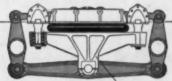


RS SERIES, rubber load cushions



Aluminum soddle standore

AR SERIES, air springs



Aluminum saddle and air reserveir

Now! Heat treated lightweight forged steel or forged aluminum equalizing beams for all three series of Hendrickson Suspensions.



HENDRICKSON MFG. COMPANY 8001 WEST 47th STREET

LYONS (Chicago Suburb), ILLINOIS























"No twisting or wracking even on the roughest terrain," says Stooge Landon, Steward of Mc-Namara drivers, "and doors are easy to close, don't gap open when trailer is parked fully loaded on slope."



"It takes only one man to shift the Brown Sliding Tandem, and we like the way it's been engineered for fast, easy lubrication. We save valuable time, both on the road and in servicing."



"We load and unload faster because of Brown's wide-opening doors and bright interiors," comments T. M. DeWitt, VP in charge of the St Louis Terminal, "and our customers like the clean, shiny appearance inside and out—fits their own ideas on cleanliness and sanitation."



KALAMAZOO TO ST LOUIS with 40,000 lbs. of steel shelving is a typical haul. But it could have been anything from plate glass to radar sets. McNamara hauled almost 200,000 tons of general commodities for 4,000 customers last year. Their equipment gets rugged duty, yet their first Brown Trailer has operated constantly for more than a year with no down time.



On tough hauls like this Kalamazoo...St. Louis run...

"Brown Trailers boost payload, cut maintenance cost"

"We expect Brown Trailers to operate more efficiently and economically because of better engineering and construction. The slim, sturdy walls give us extra capacity, light weight." This statement by Bill Dick of McNamara Motor Express, Kalamazoo, Michigan, sums up



BILL DICK, Spokesman for McNamara Motor Express, Kalamazoo, Michigan.

the reasons for their recent purchases of Brown Trailers.

The pictures you see here were made on an actual McNamara haul. Below them are the verbatim comments of drivers and terminal personnel. It's impressive evidence that Brown engineering and construction pay off in added profits on the long or short haul.

Full details on all Brown Trailers, including the allnew Model XW Exterior-Post Trailer which has a full 94" inside width, are available from Brown Sales and Service Branches in the following cities: Linden, N.J., Charlotte, N.C., Nashville, Tenn., Cleveland, Ohio, Chicago, Dallas, Denver and Oakland.



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BROWN TRAILER DIVISION
Box 410 Michigan City, Indiana

Be sure to get a quote from Brown

ANY WAY YOU USE IT

you can depend on

100% "DRY-ICF" PROTECTIO

As the sole refrigerant, rely on Purece "DRY-ICE" for safe, dependable, dry-celd. Eliminates maintenance, light-weight-more pay lead. Several types of "DRY-ICE" bunkers available.

AUXILIARY REFRIGERATION

Use "DRY-ICE" to supplement mechanical units and eliminate "hot spots".

EMERGENCY REFRIGERATION

Use "DRY-ICE" when mechanical parts break down. No speilage, if handles easily and is quickly available through the Pureco network of depots.

You can count on Pureco "DRY-ICE"... and Pureco service. Pureco Technical Sales Service will be glad to study your particular refrigeration problems and help you solve them.

Remember – over 100 Pureco depots from coast to coast are your assurance of dependable deliveries of "DRY-ICE". Pureco distribution points are all listed in a handy booklet – call or write today for your copy.



Pure Carbonic Company

A division of Air Reduction Company, Incorporated Nationwide "DRY-ICE" service-distributing stations in principal cities GENERAL OFFICES: 150 EAST 42nd STREET, NEW YORK 17, N. Y.

AT THE FRONTIERS OF PROGRESS YOU'LL FIND AN AIR REDUCTION PRODUCT

New Products

Continued from Page 190

Shockless Trailer Hitch

holds the pintle eye firmly to prevent rattles and shock. It's made for onand off-highway service and uses air or vacuum to prevent shock. When



coupling to the hitch, the drawbar triggers the top latch and automatically locks the drawbar in the hitch. The Safelock Trailer Hitch is a complete unit, weighs 38 lb, can be used to replace non-shockless hitches.

Contact A. J. Ristow, Sales Mgr., Western Unit Corp., 17747 E. Railroad St., City of Industry, Cal. Phone: EDgewood 3-4504.

(TURN TO PAGE 196, PLEASE)

New Tractor for Spector



This is one of 22 new tractors recently purchased by Spector Freight System, Chicago. Tractor is a White 9000 Series with Cummins NH 220 engine. The new units are three-axle models with third axle powered by belt drive.



How WHITE exchange unit plan saves you time and money

You get your truck back on the road fast...cut costly down time. And there's no need to tie up money and space in your own shop for large parts-inventory.

Because White Superservice Shops can replace worn parts immediately from a complete line of guaranteed rebuilt or new factorybuilt exchange assemblies, from entire engines to carburetors, from complete transmissions to clutches.

Costs are low. Prices are standardized. Factory-built assemblies come right from current production... and rebuilt units include all of the latest engineering improvements.

This money saving plan is available at all White Superservice Shops. It all adds up to good business for good businessmen.

THE WHITE MOTOR COMPANY CLEVELAND 1, OHIO Branches, distributors, dealers in all principal cities



Ready for Anything!

Milwaukee (Wis.) County Institutions and Departments have 10 ambulances ready to roll for practically any type of an emergency, as photo at right indicates. One of the most used features is the built-in oxygen system (shown at right) which has its own piping to all sections of the body. Each ambulance can handle four stretcher cases with separate oxygen outlets for each one.







WHAT A TERRIFIC PROFIT COMBINATION FOR YOU! Now degrease and clean engines faster with GUNK SUPER CONCENTRATE using the new Ein-Zwei-Dry Power Gun. Cost of enough GUNK-kerosine mixture to clean the average engine is only 35¢. Lets you make more money cleaning engines at a small investment. Also ideal for degreasing parts right on the wash rack. It's as easy as 1-2-3: THE ORIGINAL

Power Gun sprays on GUNK with deep penetrating force to reach all dirty surfaces; permits thorough degreasing in minutes, without harming engine or ignition

- 2. Power Gun rinses away grease and grime emulsified by GUNK with non-splashing water jet; won't clog drains.

3. Power Gun dries cleaned areas quickly with controlled air pressure action.

"Be a GUNK-spert" – have your jobber demonstrate how it pays you to clean away grease, grime and oil with fast acting, safe GUNK. The best for keeping concrete floors clean, too. Remember, there's only one GUNK® – SUPER CONCENTRATE – it's the original and always the best/

Banners To Advertise
"ENGINE CLEANING
WITH GUNK"
Are Available On Request
From Your Jobber.





Reg. trade mark

GUNK CHICAGO CO., River Forest, Illinois erving the Midwest and Southwest

RADIATOR SPECIALTY CO., Charlotte, No. Carolina

New Products

Continued from Page 194

"Load-Holder"

is a cargo tie-down device for trucks and trailers. A steel and aluminum belt rail is installed in the sides, roof or floor. Into these rails are fastened spring-loaded, telescoping steel tubes which stabilize the cargo. For furniture van service, pads and slip covers are hung from the top rail keeping them clean off the floor and out of the

Contact Robert E. Holman, Jr., Cargo Stabilizing Devices, 8242 Mc-Cormick Blvd., Skokie, Ill.

Automatic Car Jack

is battery-powered, hydraulically controlled. The Karlift requires no pumping or air connections and can



be moved anywhere. It can raise front or rear of any car up to 32 in. Write Big Joe Mfg. Co., Wisconsin Della, Wis.

Heavy-Duty Gear Lube

is now available in SAE 90 and 140 grades, says the maker Alpha-Molykote. It's called Molykote Type 223X and is made especially for use when gear cases operate at excessive fric-(TURN TO PAGE 198, PLEASE)



PARISH Heat-Treated Siderails

... make trucks
more profitable

Parish Heat-Treated Siderails are up to 277% stronger than regular carbon steel siderails. They enable a properly designed truck to do far more jobs than carbon steel siderails can handle. And Parish Heat-Treated Siderails stay aligned, bounce back from shocks. Drive-line components stay aligned, too, and they wear longer. There's less time out for maintenance and repair, more time on the road, making a profit.

Parish Heat-Treated Siderails cost very little, compared to the extra strength they give. You get up to three times the strength of carbon steel for only 30-40% more cost.

How about weight? Parish steel siderails are practically the same weight as high-priced lightweight metal alloys.

That's why some 30 leading truck and trailer makers use Parish Heat-Treated Siderails in the equipment they offer today's trucking industry. WRITE TODAY...

For Free Illustrated Booklet. The booklet "Load and the Road" contains a complete comparison of the costs and technical factors that you need for specifying your next truck chassis.

● DANA PRODUCTS: Transmissions * Universal Joints * Propoller Shofts * Antes * Torque Converters * Geor Boxes * Power Take-offs * Power Take-off * Joints * Roil Car Drives * Roilway Generator Drives * Stampings * Spicer and Auburn Clutches * Parish Frames * Spicer Frames * Forgings







Engineering Corporation

MACON, ILLINOIS

3995



New Products

Continued from Page 196

tional temperatures or when gears are loaded beyond the recommendations of the manufacturer.

Get complete details from David M. Noltie, Vice Pres. Sales, The Alpha-Molykote Corp., 65 Harvard Ave., Stamford, Conn.

Car Desk

clamps under the dashboard and is supported by a leg on the transmission tunnel. There are no holes to



drill. The Ride-n-Rite Auto Desk is 12 x 16 in., and will support a portable typewriter.

Write Mid-Century Tool & Products Inc., \$328 E. Lake St., Minneapolis 6, Minn.

Stoplight Switch

is for air brake vehicles, gives trouble-free operation in temperatures from —40 deg to 280 deg F. It's made by Transit Parts, has sil-

Fiberglass Pickup Top



Fiberglass plastic panels allow almost 85 per cent of available light to enter the interior of this pickup truck. The Ford pickup is owned by an Oakland, Cal., TV repairman who built the top himself. The frame is made of ¾ in. aluminum tubing, formed entirely by hand. The fiberglass panels are made by the Filon Plastics Corp., El Segundo, Cal.

verplated contacts and does not depend on current passing through the switch spring to operate it. Switch is installed in the brake system air line.

Contact Henry C. Bruggeman, Pres., Transit Parts Co., 35700 Vine St., Willoughby, Ohio. Phone: WHitehall 2-3520.









Tube-Type Valves

are for cold or hot application, can be applied with any good rubber solvent. They're made in short and long stem

Contact Paul J. Perlman, Sales Mgr., Acme Air Appliance Co., 205 Newman St., Hackensack, N. J. Phone: HU 9-8550.

Ignition Booster

improves engine idling and performance at cruising speeds. The Leibing Ignition Booster is installed in the distributor head or high tension coil



with a connection to the vacuum line. The booster gives a secondary spark gap which is said to improve performance. Vacuum pressure adjusts the spark gap, eliminating it for cold start cranking and full throttle driving.

Contact F. B. Roberts, Vice Pres., R. D. Fageol Co., Kent, Ohio. Phone: ORchard 3-9826.

Stainless Steel Milk Tanker



Almont Welding Works, Almont, Mich., has developed an all-stainless steel bulk milk pick-up tank. It's made for installation on various size trailer or truck chassis. Tank has a galvaneal coating to resist rust and 2-in. of Strafoam and cork insulation to control milk temperatures under all operating conditions. All wiring is in copper tubing for added protection.

Fluorescent Safety Paint

is so bright it can be seen for several miles, says the maker Lawter Chemicals, Inc. Hi-Viz Safety paint is made in eight brilliant colors, can be applied by brush, roller, spray equipment or from aerosol cans. In safety stripe patterns, paint stands out best, particularly in bad weather or under poor visibility conditions.

Contact Henry J. Ferguson, Vice Pres., Lawter Chemicals, Inc., 3550 Touhy Ave., Chicago 45, I.l. Phone: AMbassador 2-8400.

Volt-Amp Tester

is for testing six and 12 volt charging systems. It's the Sun Model No. VAT-20 with built-in generator field control, new amp meter circuitry and a polarity switch. It is used to check generators, cutout relays and voltage regulators on the vehicle.

Contact R. A. Bland, Vice Pres. and Gen. Sales Mgr., Sun Electric Corp., 6323 N. Avondale Ave., Chicago 31, Ill. Phone: NE 1-6000, Ext.

(TURN TO NEXT PAGE, PLEASE)



It Should Have Been Found During Overhaul BY INSPECTION with MAGNAFLUX - MAGNAGLO

Ordinarily invisible defects are located during routine preventive maintenance overhaul by simple inspection with MAGNA-FLUX-MAGNAGLO. When defective parts are not returned to service,—they don't fail in service.

Failures of crankshafts, blocks, spindles and axles (like that above) do not occur on your equipment after overhaul, if you are using inspection with MAGNAFLUX-MAGNAGLO during rebuilding of engines and units.



FATIGUE CRACK—in truck axle is invisible to the naked eye, but shows clearly with accurate Magnaflux inspection to prevent breakdown.



FEUORESCENT Magnaglo indication, as seen on crank throw during inspection. This glowing line marks a non-visible crack very near to final failure.

FOR SAFETY, ECONOMY, RELIABLE SERVICE

Write today for complete information
Inspection with Magnaflux is available to you through nationwide
Magnaflux-authorized overhaul shops as well as Magnaflux own
Inboratories. Write us for the location of shop nearest you.



MAGNAFLUX CORPORATION

7308 West Lawrence Avenue, Chicago 31, Illinois
New York 36 * Pittsburgh 36 * Cleveland 15 * Detreit 11 * Delles 35 * Los Angeles 22

New Products

Continued from Page 199

Battery-Starter Tester

is the Sun Model No. BST-10 for checking six and 12 volt batteries and starting system components. It has a built-in carbon pile loading device which permits test loads to be set for each type and size of battery.

Contact R. A. Bland, Vice Pres. and Gen. Sales Mgr., Sun Electric Corp., 6323 N. Avondale Ave., Chicago 31, Ill. Phone: NE 1-6000, Ext. 991

Data Control System

is a monitor for verifying transmitted numerical data. It is used to pinpoint and eliminate errors which occur in transmitting data over long lines. Named the Victor Data Transmission Control System, it's adapted to existing transmitting equipment used between terminals and fleet headquarters.

Contact Dan Williams, Public Relations Dir., Victor Adding Machine Co., 3900 N. Rockwell St., Chicago 18, Ill. Phone: KEustone 9-8210, Ext. 278.

Clearance Lamp

is a three candle-power model "flatback" type without protruding socket in the back. It comes with a universal mounting plate for easy installation. The Arrow 47 Series is an armored lamp.

Contact Robert Littleton, Arrow Safety Device Co., U. S. Route 113. Georgetown, Del. Phone: Georgetown

Hydraulic Power-Puller

is for body repair work, light duty frame straightening and front end alignment work. The upright pulling



arm withstands up to 12,000 lb pressure. Made by John Bean, it's available with or without clamps and chains. It can be powered in many cases with your present remote con-

Contact A. Gerard, Adv. Mgr., John Bean Div., Food Machinery & Chemical Corp., 1305 S. Cedar St., Lansing 4. Mich. Phone: IV 4-9471.

Transit Bus Seat

is called the Transiter, has new cushion-spring construction for greater comfort. Made by American Seating, the seat back is formed of polyether urethane foam padding attached to a plywood inner-back board. Seat back and cushion come in a variety of vinyl-coated fabrics with welt cord seams. Two-tone combinations are offered.

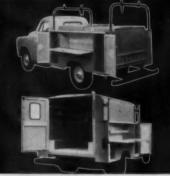
Contact K. J. Barclay. Transportation Seating Mgr., American Seating Co., 901 Broadway, N. W., Grand Rapids 2, Mich. Phone: GL 9-0171.

Selective Drive Hubs

are for four-wheel-drive Fords with spicer axles. The Warn Model FL-2 hub disengages the front wheels from the drive train when truck is operated in two-wheel drive to eliminate

BODIES AT Customized BODIES AT PRODUCTION PRICES







Take a closer look at the advance designed Morrison Body. You'll like what you see - 1960 styling, functional compartments plus rugged construction - Morrison's superior design and quality construction is a direct result of its modern mass production methods, providing additional savings to you.



Whether your requirements are for a small service body in repair and maintenance work, a line body for heavy construction jobs or special equipment to tailor-make your rolling stock into highly CUSTOMIZED mobile units -the Morrison line has it at your local





drag and unnecessary parts wear. On Ford models F100 and F250, hubs are installed without removing the wheels. Hubs are turned from "free" to "lock" position when front wheel drive is desired.

Contact Thurston Warn, Gen Mgr., Warn Mfg. Co., P. O. Box 6064, Riverton Station, Seattle 88, Wash. Phone: CHerry 4-3400.

Portable Tune-Up Kit

has a timing light, tachometer, ignition tester, regulator tester and dwell meter. The maker, Kennedy Tools, offers it as a kit or by individual units.

Contact Russell Stone, Pres., Kennedy Service Tools Co., 788 Evans Ave., Akron 10, Ohio. Phone: Blackstone 3-4848.

Heat Generators

produces 850,000 Btu's per hour for heating water, storage tanks, frozen equipment and similar type jobs. The "HT" Hypressure Jenny heat generators are self-contained and burn oil, natural or LP Gas. They're offered in stationary, shop portable or trailer-mounted models (shown here). The new series is said to be easily convertible to steam cleaners.

Contact Elliott G. Johnson, Adv. Mgr., Homestead Valve Mfg. Co., P. O. Box 348, Coraopolis, Pa. Phone: AMherst 4-3240.

Telescoping Platform



The "Industrial Monkey" has been developed by the IM Div., Peters Co., Portland, Ore. Designed for mounting on 16,000 lb or heavier truck chassis, it doesn't need outriggers, has a working range from straight-out to straight-up and a 270 deg turning radius. The hydraulically-operated telescoping boom and aerial platform gives a maximum working height of almost 50 ft.

Tire Valve Extensions

are oversize for use with rubber base or screw-on repair valves on off-highway equipment. They're easily installed to extend tire valves to a more accessible position and are available in four types.

Contact Low Petrovich, Adv. Mgr., Dill Mfg. Co., 700 E. 82nd St., Cleveland 3, Ohio. Phone: UT 1-2200.

Lightweight Chain Hoist

is made of aluminum alloy, comes in capacities from ¼ to 10 tons. Made in

West Germany, the Hadef line of hoists are hand operated. The ½-ton model weighs just 26½ lb. Features include a clickless load brake and a steel sprocket wheel.

Contact David P. Adams, Gen. Mgr., Consolidated Equipment Sales, Inc., 550 5th Ave., New York 26, N. Y. Phone: CI 5-2235.

Undercoat Sprayer

has an Atlas pump with a 10 to 1 ratio powered by an air motor. It de-(TURN TO PAGE 205, PLEASE)



EXCLUSIVE FEATURES WIN TOP POPULARITY!

AUTOPULSE

THE ORIGINAL ELECTRIC FUEL PUMP

More commercial vehicles are using Autopulse electric fuel pumps today, than all other makes together. The reasons are found in the many advantages ONLY Autopulse offers: For instance:



Adjustable, regulated fuel preszure. Ne additional regulator needed.

Automatic, constant fuel supply licks vaper lock and altitude.

6-volt or 12-volt—any voltage

Both a "pusher" and "puller," Autopulse flow can be reversed

Autopulse can be used in series. NO ENGINE IS TOO BIGI



These are examples of the many features that make Autopulse quality and performance unsurpassed. Yet its price is *lowest* in the electric fuel pump field!





Electric
AUTOPULSE
Division

WALBRO CORPORATION Cass City, Michigan

BIG "SLUGGERS!" The Stoux No. 320 and 322 air impact wrenches achieve a new high in power to weight ratio. Certified torque as shown in specifications with 8 points of power selection makes them most ideal for heavy duty work.

IMPACT WRENCHES Sioux electric impact wrenches offer equal power in right or left hand rotation. The torque for each wrench

is stated and certified. Their mechanical design offers exactly the same advantages as that of the air wrenches. Their exclusive reverse cap switch lock prevents reversing with

the current on, and eliminates burning commutator brushes and switch

contacts. They are unexcelled in

performance.

More than MEDIUM!

No. 315 and 316 are popular industrial and general use sizes with great versatility of use and power for extra punch. They're designed for use where power is required beyond that of conventional 1/2" drive wrenches.



Medium POWER

No. 315 and 316 cover a torque range adequate for many purposes. They're thoroughly tested and proven. Thousands are in daily use.

MARAGE

for every task!



PROVEN EFFICIENCY

Here, the advantage of the exclusive Stoux mechanical design is revealed! You can expect your Stoux air impact wrench to deliver 25% more torque while consuming 30% less air! Less power is absorbed by the wrench itself. More is applied to the drive!

FIELD TESTED, TIME TESTED PROVEN DEPENDABILITY

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REACTION BALANCED for **Less Vibration Feedback**

All Stoux Impact Wrenches are "reaction balanced" for less vibration and torque feedback and for minimum operator fatigue. You can feel the dif-ference!



used directly on the square of the impact wrench to reach those hard to get at spots.

Compare the TORQUE! the QUALITY!

Cat. No.	Square Drive	Cap. Belt Size	Torque Ft. libs, at 90 lbs. Air Pressure at Teel
. 314	3/8" 1/2" 1/4" Hex	. 3/8° . 7/16°	60
315	. 1/2" . 7/16" Hex		
316	5/8"	. 5/8"	195
319	5/8"	. 7/8"	
*AIR SCREWDRIVER	ELECTRIC		Torque Ft. lbs.
Cat. No.	Square Drive	Cap. Bolt Size	in 10 sec. operation Right or Left
323	1/2"	. 7/16"	75
330	1/2"	. 5/8"	
ALSO NO'S.	260, 262, 242, 246 ELJ	ECTRIC SCRE	WDRIVERS

ALBERTSON & CO., INC. SIOUX CITY LOWA, U.S.A.



SIOUX tells you the torque your air or electric impact wrench will deliver. (See specifications.) You don't buy just a wrench. You buy certified SIOUX power! Reversible power. And on air wrenches controllable power through eight point power selector.



Production type No. 313, 314!

AIR IMPACT WRENCHES

These models feature an exclusive remote air exhaust that takes exhaust 6 feet from the operator. Quiet, clean operation. Production type design with paddle switch, and 8 point torque selector.



No. 303 AIR IMPACT SCREWDRIVER

Same as above except takes 1/4" hex drive shanks for clutch head, Reed and Prince, standard, and Phillips screwdriver bits, and for Allen type socket



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 ELECTRIC IMPACT WRENCHES - GRINDERS - SANDERS
 POLISHERS - SCREWDRIVERS - PORTABLE SAWS VALVE FACE GRINDING MACHINES - ABRASIVE DISCS



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- · paint stripping
- pre-paint conditioning
- · body washing
- Interior tank cleaning
- garage maintenance

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DEPT. 41, ARCHBALD, PENNSYLVANIA



New Products

Continued from Page 201

livers up to 5 gal per minute at a working pressure up to 1000 psi. The Powermastic sprayer, as it's called, has its own built-in heating element. Hot spray application of asphalt-type undercoat materials is said to give a better film build-up with less shrinkage and faster drying time.

Contact D. J. Allen, Adv. Mgr., The Spee-Flo Co., 6614 Harrisburg Blvd., Houston 11, Tex. Phone: WAlnut 8-5421.

Carburetor Valve Tester

shows if the needle-and-seat valve is working properly. Test takes less than a minute. Vacuum and a gage shows instantly if there is a leak. Ball and check valves used in accelerator pumps can also be checked.

Contact William Pettinger, Adv. Mgr., Paser Mfg. Co., 587 Turk St., San Francisco 2, Cal. Phone: PRospect 6-4800.

Battery-Water Unit

converts regular tap water to pure battery water. It is attached to any water faucet. No heat or power is required. The C59B-H Hydrion Unit is automatic, can be regulated to give various levels of water purity. Disposable refills are used to recharge

Contact A. E. Tomkin, Gen. Mgr., A. E. Tomkin & Co., 1507 M St., N.W., Washington 5, D. C. Phone: HU 3-6044.

Hose Clamp Kit

permits making clamps in any size in minutes without any special tools. The Perm-A-Grip kit has band ma-

Multi-Stop Van



Here's one model of the new De-Kalb Forward-Vans. It's made especially for multi-stop delivery service, has 72 in. head room and is 78 in. wide. Driver's compartment has a new instrument panel and package shelf area. Body has dual rub rails, wrap around bumpers and increased visibility. Forward - Vans are made by DeKalb Commercial Body Corp., De-Kalb, Ill., and are offered in lengths from 8 to 12 ft.

terial made of stainless steel. The buckle, on which the strap winds, is made of heat treated steel and is coated for corrosion resistance. One kit can handle all your fleet needs.

Contact A. E. McElroy, Pres., Perm-A Mfg. Co., 296-98 Spring Garden St., Ambler, Pa. Phone: MItchell 6-0216.

Spark Plug Wire

is for use where high engine compartment temperatures crack or damage conventional wire. The new Steel-ductor Wire is made by Auto-Lite and has a Silicone insulation with a glass braid. It has seven strands of stainless steel wire covered with the Silicone compound. The wire is also said to give more starting voltage with less coil energy. It's available in 100 and 1000 ft spools.

Contact John W. Lingle, Wire and Cable Merchandising Mgr., The Electric Auto-Lite Co., Toledo 1, Ohio.

Truck Wheel Changes — a one-man job with KEN-TOOL IMPACT WRENCH SETS

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A REPUTATION FOR





"Save the tough jobs for Scandinavia" is more than a claim. Scandinavia ZT-Molded Combination Sets have earned their reputation in the heavy-duty field. The die-pressed ZT segments have a polishing effect on brake drums which is reflected in a definite reduction of heat-checking and fading. The specially compounded molded segments, combined with ZT, result in dependable braking and long life — even in extra-heavy-duty service.

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makes good mountain drivers out of average drivers,"

says Richard Burley of Maskelyne Trucking and Storage, Walla Walla, Wash., in reporting on a Ford moving van with Allison-built Fully Automatic Transmission

"Jockeying a 32,000 GCW van over mountain ranges is no joke," says Dick Burley. "Before we got our Ford Transmatic tractor—about a year and a half ago—only our most experienced men were sent on the Cabbage Hill run. With this truck, anybody we have can do it."

The secret: Transmatic takes over the back-breaking shifting job on the climb up the Blue Mountains—a 3500-foot rise in less than 14 miles. That frees the driver to snake the 45-foot rig around the neverending corkscrew turns.

"But the curves are only part of the problem in these mountains," Burley continues. "Coming down the west slope of the Cascades, you run into pockets of fog. There are patches of snow and ice the sun never melts. The man at the wheel really appreciates the way Transmatic frees him from shifting duties." Transmatic Transmission has proved itself an important timesaver and provides far greater safety, too. Despite the hazardous routes, Burley estimates a 7½% cut in trip-time. And, at last report, this truck hadn't lost a minute to down-time in a solid year of use.

"No matter where we send it, our Ford Transmatic does the job better," reports Burley. "Coming down the mountains, the built-in Retarder makes braking safer and surer—prolongs the life of the linings. And in local assignments around town, this rig is a cinch to maneuver and park without blocking traffic. It's definitely one of the best truck buys we've ever made!"

For the best buy you've ever made in a truck, get the full story on one with an Allison-built Fully Automatic Transmission—at your truck dealer!

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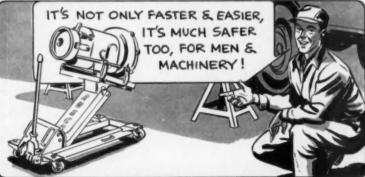


Toramati



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Superior Features for Superior Performance



A basic necessity for a speedy, efficient service program — plenty of Ausco reliaway service jacks. Check your equipment now. If you need more jacks or replacements, call your Ausco jobber. Capacities 1½ ton to 20 tons.



Handles any over-the-highway truck transmission with power to spare. Saves many man hours and avoids injuries to personnel and damage to units. Relses high enough (30%) to transfer to bench or fixture. Full 2000 lbs. capacity.



Change Tires Faster with AUSCO Dual Wheel Dolly . . .

Take all the back-breaking work out of removing and replacing heavy tires. A sturdy Ausco hydraulic unit does all the lifting. Four ball-bearing coster wheels for complete easy mobility.



Diamond T diesel Model 921 DFN

DIAMOND T QUALITY is NOT CONVERSATION— Compare specifications before you buy!

EVERY Diamond T diesel, of course, is custombuilt to the job. There is a choice of 6 engines, 12 main transmissions, 6 auxiliaries, 11 rear axles, 12 tandems, 3 positions for front axle, etc.

This is desirable, even necessary, but not unique. It is in the rigid quality standards of basic specifications that Diamond T cannot be matched.

How Diamond T does it

For example, this new "D" Series is built with 10" frame siderails of heat-treated chrome-nickel molybdenum steel—tensile strength 105,000 lbs. per sq. in. This is a higher quality—and higher cost—frame material than is used by anyone else in the industry, so far as we know. Diamond T Cummins engines have costlier aluminum fly-wheel housing, gear-case cover, intake manifold and oil-pan—with compression release standard.

Muffler is Hopkins light weight, matched with lightweight stack and supports. Standard batteries provide 150 amp. hours of capacity at 24 volts output. Hydraulic shock absorbers are standard, front tow pins, stainless steel hood trim, cast aluminum radiator tanks for "F" models. Radiators have extra capacity and unusually large frontal area. Radiator shutters are standard equipment.

Superior Cab Construction

Cab is of rugged girder-type construction, of welded steel, insulated. It is a full 72" wide and 57%" high, provides exceptional arm, leg and head room. Visibility is outstanding—the two curved windshields are of "Solex" glare-absorbing safety plate glass. Extra heavy-duty windshield wipers are standard, two sun visors are supplied. Three large cowl ventilators are controlled from the dash.

This list is by no means complete, and some (but not all) of these items can be supplied by others, usually at an extra charge. They are standard on all Diamond T "D" Model diesels. Diamond T quality is not conversation! Compare specifications before you buy. See your Diamond T dealer.

DIAMOND T TRUCKS

Established 1905



The Diamond

